A model of key characteristics affecting consumer attitudes toward the usage of free legitimate ad-supported music download services

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Abstract

Digital music file sharing has had a significant negative financial impact on the recorded music industry, causing multi-billion dollar losses over the past decade. In a world where file sharing is now an activity that can be carried out with ease, industry stakeholders are continuously looking for ways to profit from changing consumer behaviour.

To date, literature has looked at why people illicitly download (e.g. motivations, ethical considerations), the financial impact of file sharing (e.g. lost revenue), legal approaches to combatting file sharing (e.g. what approaches work, if any), and new business models for paid services (e.g. price sensitivity, value propositions). Academic literature has thus far largely focused on how to eliminate file sharing and convert illicit downloaders to paid platforms, but has not examined the potential for converting illicit downloaders to a free legitimate, platform.

This thesis is the first piece of academic literature to consider free legitimate ad-supported music download services as a way of monetizing downloaders' free consumption behaviour, specifically by identifying key service characteristics that influence consumers' attitudes toward using such services, and providing a rich contextual understanding of the perceived importance and value of such characteristics.

A sequential mixed methods approach was used to explore this topic and develop and validate a conceptual model. The primary research stages consisted of in-depth interviews, group interviews, and an online survey.

This thesis shows there is potential for mainstream consumer adoption of free legitimate ad-supported music download services, with the caveat that the services be as good as or better than those (free services) already used. Several characteristics were found to be important influencers of attitudes in this regard. Some characteristics were found to be very important (perception of a large enough music catalogue, freedom of use of downloaded files, delays caused by advertising not being perceived as excessive), some were found to be less important (ease of navigation/use, perceived trustworthiness of the service), and

some were found to be not at all important (ability of the service to recommend music, social networking facilitation via the service).

While this thesis identifies what an 'ideal' service looks like for consumers, it also finds that tension exists in the economic relationship between consumer behaviour and ideals, and what industry is able to viably deliver in an ad-supported service. The structure and conditions of today's marketplace are such that the fundamental economic viability of free ad-supported music download services is brought into question, irrespective of whether such a service can meet consumers' needs.

While this thesis is specifically concerned with music download services, the model developed within it could be tested for other online content services such as streaming music or video, and video download services.

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List of Abbreviations

£	Pounds Sterling (monetary currency of the United Kingdom)
$US	United States dollars
BPI	British Phonographic Industry
CAD	Canadian dollars
CD	Compact Disc
CEO	Chief Executive Officer
CIMA	Canadian Independent Music Association
CIRPA	Canadian Independent Record Production Association
CRIA	Canadian Recording Industry Association
DRM	Digital Rights Management
DTPB	Decomposed Theory of Planned Behaviour
IFPI	International Federation of the Phonographic Industry
MP3	A compressed audio file format (see glossary)
P2P	peer-to-peer
RIAA	Recording Industry Association of America
SEK	Swedish krona (monetary currency of Sweden)
TAM	Technology Acceptance Model
TAM2	Technology Acceptance Model 2
TIB	Theory of Interpersonal Behaviour
TPB	Theory of Planned Behaviour
TRA	Theory of Reasoned Action

TTF	Task Technology Fit model
UK	United Kingdom
USA	United States of America
UTAUT	Unified Theory of Acceptance and Use of Technology
WAV	Waveform Audio File Format (see glossary)
WMA	Windows Media Audio (see glossary)

TTF Task Technology Fit model

Chapter 1: Introduction

This chapter outlines the aims and objectives of this research, and gives an overview of its justification, as well as its scope and assumptions. A detailed introduction and background to the research topic are provided in Chapter 2. Chapter 1 concludes with an outline of the structure of this thesis.

1.1   Justification for research

As Chapter 2 will discuss, digital music piracy has had a significant negative financial impact on the recorded music industry since it started to be facilitated en masse at the end of 1999.

The initial idea for this thesis was borne out of the author's masters dissertation (Harris 2007), which discussed the future of major record labels in the face of music piracy, and labels' slow pace of adapting to a rapidly changing business environment and consumer behaviour. One of the questions for further research in the dissertation had to do with exploring consumer attitudes and perceptions of value, and how companies could apply greater academic insight into these areas.

There is a wide breadth of academic literature specifically related to music piracy, from reasons for downloading illicitly (e.g. Giesler, Pohlmann 2003, Levin et al. 2004, Taylor 2004, d'Astous et al. 2005, Easley 2005, Lysonski, Durvasula 2008, Podoshen 2008, Garcia-Álverez et al. 2009, Shang et al. 2008), to the impact on the economy and whether or not litigation is effective (e.g. Polon, Fredrickson 2000, Liebowitz 2003, Rupp, Smith 2004). While much effort has been directed toward observing, measuring, and critiquing what has already happened, there is a distinct lack of literature related to how to gain a better understanding of and capitalize on consumer behaviour. In particular, there is a lack of literature considering consumers' wants and expectations, and solutions that might be attractive to illicit downloaders that also allow key industry stakeholders to benefit financially.

A typical goal of industry has been to convert illicit downloaders to paid alternatives. As Figure 1 shows, much of the literature related to music piracy tends to be focused on free, illicit download services, or pricing and value for paid services – understanding why people download illicitly, and where the value is in paid services, in the hope of better understanding, and ultimately converting, illicit

downloaders. Illicit paid services, while they do exist, are not common in the marketplace, thus it is not surprising that there is little to no literature covering that area. There is, however, a lack of literature considering legitimate, free music download services.

From a pragmatic point of view, converting people who will not pay for music to a free but legitimate platform that financially compensates industry stakeholders would seem to be a much easier win for industry than asking those same consumers to pay for what they download. This thesis is the first piece of literature to specifically and explicitly address this area and its potential, from the point of view of identifying key service characteristics and understanding and modelling consumer attitudes towards a specific type of legitimate free music download service (i.e. ad-supported).

	Free Download Services	Paid Download Services
Legitimate	e.g. Fox, Wrenn 2001, Papies et al. 2011, Clement et al. 2012 (typically only a high level concept outline)	e.g. Papadopoulos 2004, Buxmann et al. 2005, Amberg, Schröder 2007, Jaisingh 2007, Kunze, Mai 2007 (focus on value and pricing)
Illicit	**General:** e.g. Gopal et al. 2004, Ishizuka 2004, Levin et al. 2007, Ramayah et al. 2009 **Motivation and ethics:** e.g. Giesler, Pohlmann 2003, Levin et al. 2004, Taylor 2004, d'Astous et al. 2005, Easley 2005, Lysonski, Durvasula 2008, Podoshen 2008, Garcia-Álverez et al. 2009, Shang et al. 2008 **Financial and legal issues:** e.g. Polon, Fredrickson 2000, Liebowitz 2003, Rupp, Smith 2004, Danaher et al. 2012	n/a (uncommon service)

Figure 1: Map of literature coverage against service type

There is a gap, say some authors, between what companies think consumers want and what consumers actually want, and the importance of understanding consumer behaviour should not be underestimated (Vaccaro, Cohn 2004, Molteni, Ordanini 2002, Fletcher 1987, Helberger et al. 2004, Constantinides 2004). When developing new business models to draw consumers away from music piracy and towards legitimate alternatives, it is important to consider consumers' needs, wants, and behaviour, and not only the financial viability of the business models. A model that is technically sound from a financial point of view may not be appealing to consumers, and there are examples of consumers rejecting both paid and free legitimate music services that tried to compete with illicit offerings (MusicNet, PressPlay, and SpiralFrog are just three examples).

Attempting to control consumer behaviour online to combat illicit downloading has "led to the downfall of the recorded music business" (senior music industry executive in Harris 2007:155-157). Herbig and Kramer (1994:47) note the pull approach to technology is usually more successful than the push approach, and that companies must consider "whether a product has a chance of success in the customer's mind". Herbig and Kramer also caution that companies that choose to ignore consumer behaviour do so "at their own peril" (p.50).

Considering that this thesis looks specifically at attitudes towards free services, there is still little understanding of what consumers want from a free service other than for it to be free. Literature on music download services considers paid versus free illicit (e.g. Levin et al. 2004, d'Astous et al. 2005, BPI 2009), and legitimate free, ad-supported versus paid (e.g. Papies et al. 2011), but not free legitimate versus free illicit, which further illustrates the importance of this thesis.

Canada, the USA, and the UK were the first three markets to launch mainstream (ad-supported) music download services, and have long been the top English-speaking markets for recorded music sales globally, though Australia and Canada occasionally trade places in global rankings by market value. Canada, the USA, and the UK have relatively similar cultures (Western, English-speaking markets with similar legal systems, media, and levels of technology adoption). Exploring them together in this thesis provides potential for more insight into the issues being investigated than would a single market study.

1.2   Aims and objectives

This research aims to increase both academics' and industry's understanding of consumer attitudes toward free legitimate ad-supported music download services. Focusing on consumers in Canada, the USA, and the UK, it considers how consumers interact with music download services, what they look for in services (key characteristics), and how these key characteristics influence their attitudes toward using such a service. Overall, the aim is to develop an understanding of consumer behaviour as it relates to the potential acceptance of ad-supported music download services, constructing a conceptual model that outlines a research agenda in this area. The conceptual model contains rich contextual information that illustrates and explains these characteristics' relationships and significance, so that both academics and industry can benefit from an academically-grounded understanding of consumer behaviour in this area, which at present does not exist. The benefit of this is research that can be applied directly to an industry that is suffering financially due to difficulties in both understanding and adequately catering to consumer behaviour.

In order to fulfil the aims of this research, a number of objectives were developed:

1. Conduct a review of consumer behaviour theories and models, and determine which are relevant to the context of this study

2. Identify the key characteristics that affect consumer attitudes toward the usage of an ad-supported music download service, the characteristics that affect perceived attractiveness of such a service, and their relative perceived importance/value

3. Determine whether ethics have an influence on intention to use a legitimate service rather than an illicit one when both are free

4. Identify relevant norms and whether they influence intention to use a free legitimate ad-supported music download service rather than an illicit service

5. Examine attitudes towards online advertising, including the role of presentation and its effect on perceived trustworthiness, perceived time delay, and attitudes toward a site or service

6. Develop a conceptual model showing the relationships between key characteristics affecting attitudes toward the usage of a free, ad-supported music download service

1.3   Scope and assumptions

It is important to clarify what this thesis is and is not about, and what assumptions have been made. While some areas are outside the scope of analysis, they may be referred to for context, and it is possible that adaptations of the model proposed in this thesis can be applied to such other areas (e.g. video services).

This research is not about online media services generally. Though video is considered within the context of pre and post-roll advertising, video services offer a different media format with different dynamics and are not appropriate for inclusion. Similarly, music streaming is a fundamentally different offering than downloading (users do not get to keep songs), so this type of model is also excluded, as it is not a direct substitute for illicit downloading.

Realistic substitutes for a free, ad-supported service are assumed to be other free services, based on 'free' being cited as the most common reason for illicit downloading (see IFPI 2011:15). Therefore, ad-supported services are contextualized here based on a free versus free perspective rather than free versus paid or willingness to pay (e.g. Papies et al. 2011). This thesis' like versus like approach to examining free services is unique in the body of literature.

It is important to understand that this thesis specifically addresses the consumer behaviour perspective, not an economic or structural business model perspective, or an information systems perspective. A company can develop a model that is technically excellent in terms of its licensing and contractual obligations and its digital rights management, but if it does not align with consumer behaviour, it will likely have little chance of mainstream success. Likewise, while this research may suggest ways that companies could better market music services, it is about discovering fundamentally influential service characteristics, not how to market a music download service.

While this thesis discusses music piracy, it is not specifically about converting file sharers to legitimate channels. That is a potential benefit of the research, but is not its primary area of investigation.

1.4   Thesis structure

This thesis outlines the background, justification, and approach to research, and develops and refines a framework for the key characteristics affecting consumers' evaluation of ad-supported music download services, and their attitudes toward the usage of such services. It provides a contextual analysis of qualitative and quantitative primary research findings, and concludes with a validated conceptual model and proposed topics for future research. As this is research for an applied doctorate, this thesis has been written with the aim of being accessible to academics and industry practitioners alike.

Given that this is exploratory research in a new area, the first three chapters provide an overview and contextualization of relevant themes.

Chapter 1 outlines the aims, objectives, and justification for this research, as well as its scope and assumptions, and original contributions to the body of consumer behaviour literature.

Chapter 2 provides an overview of the significance and impact of file sharing, industry's response to the issue, and introduces the concept of an ad-supported music download service.

Chapter 3 outlines consumer behaviour literature, using a topical approach to address relevant theories. It includes literature on perception, motivation, choice, value, service quality, advertising, illicit downloading, ethics, norms, switching behaviour, and multi-attribute predictive behaviour models. The chapter concludes with the development of an initial conceptual model of consumer attitudes toward an ad-supported music download service. Section 3.1.5 explores frameworks upon which to couch these relevant themes, providing an academically underpinned conceptual model for primary research and analysis.

Chapter 4 outlines the methods used in the qualitative and quantitative primary research exercises, and the approach to research design, data collection, and data analysis.

Chapter 5 discusses the qualitative findings and revisions made to the initial conceptual model as a result, and proposes hypotheses for quantitative validation. It also outlines the quantitative findings and final validation/disproval of the hypotheses.

Chapter 6 discusses the primary research results and how they confirm, extend, and/or challenge the literature from Chapter 3.

Chapter 7 summarizes the key findings of this research and how they can be applied in industry, discusses the original empirical and theoretical contributions that have been made, and proposes areas for further research.

1.5   Summary

This chapter outlined the aims and objectives of this thesis, and gave an overview of its justification, as well as its scope and assumptions. A detailed introduction and background to the research topic are provided in Chapter 2, and an overview and contextualization of relevant themes is provided in Chapter 3. Figure 2 shows the flow of research for this thesis, from Chapter 2 onward.

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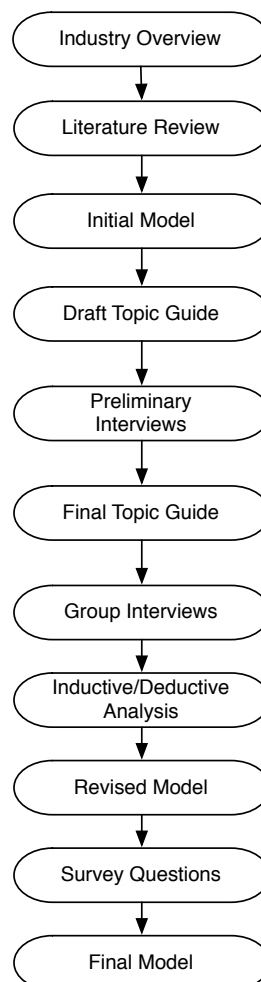
Figure 2: Flow of research from Chapter 2 onward

Chapter 2: Industry Overview

This chapter provides a descriptive overview of the environmental climate in the music industry that is relevant to this study. It discusses the economic role of new music formats, including the introduction and impact of music file sharing, industry's response, and the concept and challenges of an ad-supported music download service. It is intended to provide a brief overview of key challenges leading to the advent of ad-supported music download services, in order to provide sufficient context for the literature review in Chapter 3.

2.1　The economic significance of file-based music formats

The introduction of new playback formats has traditionally been an important revenue generator for the recorded music industry (Burnett 1996). Record companies have historically taken advantage of new media by re-selling consumers their entire music collections in formats such as 8-Track, cassette, or Compact Disc (CD), relying on consumers eventually upgrading their playback devices and media as older technology became obsolete. For example, the introduction of the CD in 1982, a revolutionary format at the time, arguably helped the industry recover from a sales slump it suffered from 1979-1984 (Gronow 1983, Burnett 1996). However, it took 18 years for annual recorded music CD sales to peak, when 2.455 billion units were sold globally in 2000 (BBC News 2007).

Accessible digital technology has put a great deal of power into the hands of consumers, and has affected the way consumers interact with recorded music. In October 1999, Napster, acknowledged as the first file sharing application specifically for music, was introduced. Napster made it possible for people around the world to share music files with each other online – all they needed was a computer, Napster (a free application) installed on their machine, and an Internet connection. While file sharing existed before Napster, this software was a catalyst for mass music piracy online, with consumers being able to search for and download not only concert bootlegs and obscure music, but hit albums from famous artists, all without having to pay for the music.

Recorded music sales on CD started to decline with the introduction of widely accessible file-based formats, as the record industry started to lose control over physical distribution to consumers, and could not rely so heavily on its decades-

old model for content monetization (Graham et al. 2004, Harris 2007). Within a few years of Napster's introduction (and the introduction of similar applications under other brand names), it became clear that online music piracy had become a serious problem for the music industry, with Hillary Rosen, CEO of the Recording Industry Association of America (RIAA) in 2003, stating that "the survival of the music industry depends on creating legitimate online alternatives to file-swapping" (Bai 2003). An industry that made its money by marketing and selling physical products through an established, tightly controlled value/supply chain was now forced to 'compete with free'.

For well over a decade now, illicit downloading has been shrinking revenues from recorded music sales in key global markets. To give an idea of the scale of the problem, the International Federation of the Phonographic Industry (IFPI) estimated that by 2006, 20 billion songs had been illicitly downloaded globally (Department of Canadian Heritage 2006). In Canada alone (a country of 33 million at the time), by 2004, illicit music downloads were estimated to be as high as 180 million tracks per month (CRIA 2004).

Considering the dollar value of recorded music sales since 1996, the total value of recorded music sales in the USA reached a low of US$6.85 billion in 2010 from a peak of US$14.58 billion in 1999, representing a decline of 53% (RIAA 2007, 2009, 2011). In 2009, the total value of recorded music sales in Canada reached a low of CAD$355 million, down from a peak of CAD$761 million in 1999, representing a decline of 53% (CRIA 2011). Considering the retail value of the UK market from 2000 to 2010, total sales value in the UK peaked at £1.96 billion in 2002, declining to £1.24 billion in 2010, representing a drop of 37% (IFPI 2001, 2002, 2003, 2004, 2005b, IFPI 2006, BPI 2011). The UK has historically been more of a CD singles-driven market than North America, which may account for the country's relatively smaller decline.

Given market trends over the last decade and lamentations of industry executives at conferences and in trade literature, it thus far seems likely that these declines in revenue will continue, barring any change in consumer behaviour.

A large part of the solution to the problem introduced by file sharing appears to lie in innovating and finding ways to generate revenue from consumers in a way that

does not alienate them, by developing products and services that align well with consumer wants and behaviour.

2.2   Industry's response to file sharing

This section discusses industry's response to the problem of file sharing, illustrating consumer reactions and providing a basis for exploring ad-supported models in this thesis.

Industry has made attempts to influence file sharing behaviour in three main ways: through litigation (attempting to stop piracy through fear of consequences), content monetization (developing new forms of content or content delivery and encouraging consumers to buy), and monetizing free consumption behaviour.

Napster gave consumers freedom and choice, and changed the way people interacted with music. Interestingly, the industry's response at the time, and for many years later, was not to attempt to compete with this service, or offer a better alternative, or work quickly to incorporate it into new business models, but to try to clamp down on consumer behaviour, which was arguably the industry's biggest failure (Tapscott, Williams 2006, Geist 2007, Harris 2007). The RIAA even filed for a legal injunction against one of the first MP3 player manufacturers (Borland, Mariano 2001, Brandenburg 2011) to stop them from selling their MP3 player, in an attempt to prevent consumers from being able to play illicitly downloaded music on portable devices.

Litigation has arguably had a negligible impact on behaviour. The literature on this topic is conflicting, with some authors saying it has been an effective deterrent, and others saying it has had no effect, or even encouraged an increase in illicit behaviour (for example, see d'Astous et al. 2005, Depoorter et al. 2005). In some markets, a lack of legislation pertaining to digital copyrights has made litigation difficult or impossible. Even in 2001, there were suggestions from some that litigation was not an effective strategy, and that "legitimate alternative[s]" to file sharing needed to be found (see Fox, Wrenn 2001:113). Michael Geist, a well-respected scholar of Internet and e-commerce law, argued that billions of dollars in profits could have been made by the industry if it had monetized file sharing networks early-on through a subscription-based model (Geist 2007).

Record labels also tried to prevent file sharing by introducing various types of third-party copy protection onto CDs to stop people copying music to their computers. Most of these efforts were quickly cracked and rendered useless, while other efforts alienated consumers (e.g. copy protection software causing computers to crash, and music CDs silently installing spyware on unsuspecting consumers' computers).

Circa 2007, Edgar Bronfman, CEO of Warner Music at the time, said in a speech that the recorded music industry had acted so slowly to changing consumer behaviour, and he implied that the legitimate services offered were so un-intuitive, that the industry effectively "went to war" with consumers, by denying them the freedom and interactivity they were looking for (CIRPA 2008).

Almost two years after Napster was released, and after repeatedly declining previous advice in the mid-to-late 1990s to offer mainstream paid MP3 download services (Brandenburg 2011), major labels made attempts through joint-ventures to launch their own paid, subscription-based music services (e.g. MusicNet, PressPlay). The first service had a limited launch in the USA in 2001. These early ventures failed, largely due to the strict DRM restrictions they placed on users (DRM is the technical/industry term for managing rights to digital content, typically by restricting access or usage). Early services also required a credit card to obtain music, which immediately made it difficult for many young people (the most prolific downloaders) to make use of them. Eventually, more palatable services with major label licensing reached the mainstream marketplace, with iTunes being an example of the most successful (released in the USA in 2003, and in Canada and the UK in 2004).

Labels have recently been proactive in creating new ways to monetize content. As Figure 3 shows, paid digital formats such as singles, albums, ringtunes, ringbacks, music videos, full length downloads, other mobile content, and kiosk sales consisting of singles and albums, are popular amongst consumers. Figure 4 shows, however, that even double-digit annual growth percentages have not been able to reverse the declining revenue trend, which has been of great concern to the industry.
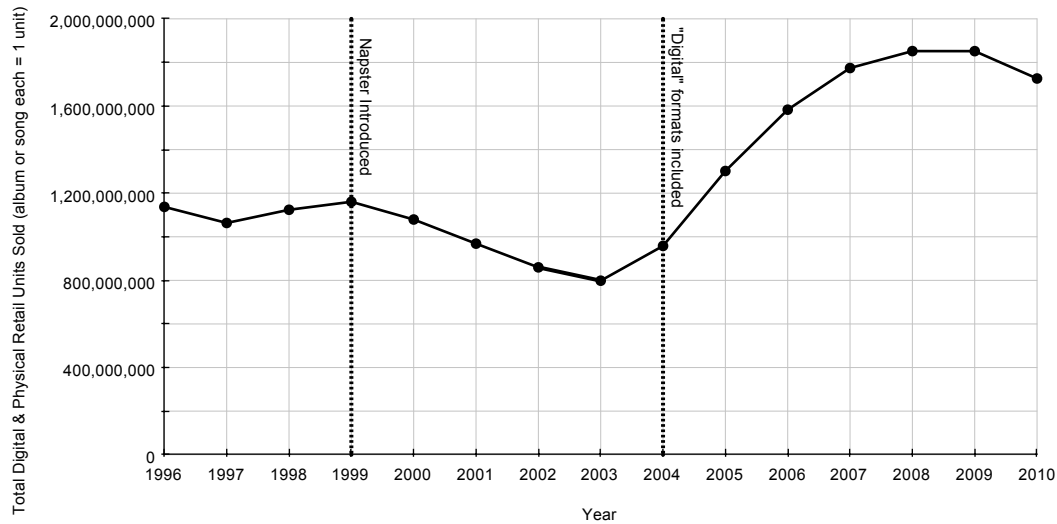
Figure 3: Total physical and digital unit sales in the USA, 1996-2010 (RIAA 2007, 2009, 2011)
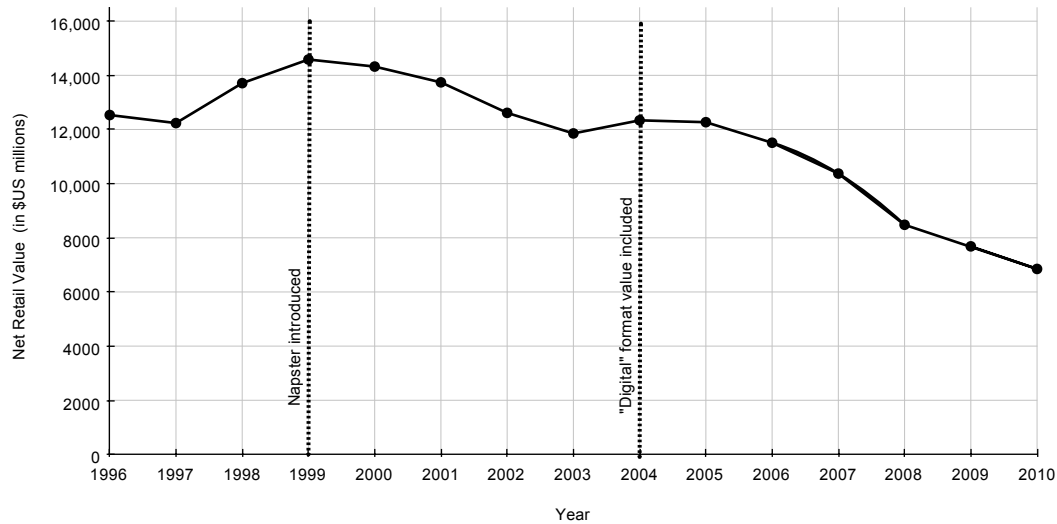
Figure 4: Total retail value of physical media and digital format sales in the USA, 1996-2010 (RIAA 2007, 2009, 2011)

The digital music marketplace is heavily tilted towards singles purchases, as opposed to albums, which explains much of this disproportionate trend. A unit can be an album or a single song, so while unit sales can increase enormously, if the majority of sales are 99-cent singles instead of ten-dollar albums, sales revenue will not increase proportionately. Similarly, monetization of music streaming via 'freemium' subscription services (upgrading free users to paid subscriptions so they can avoid advertising) has typically yielded user conversion rates viewed as disappointing by many labels (e.g. BPI 2011), with rates of 10% or less for some services.

Offering music as a service, rather than simply a product, is becoming an increasingly more common approach (Clement et al. 2012, Waldner et al. 2012). Semenzin et al. (2012), examining a number of cloud-based services including music streaming, mention differentiation as a value strategy to distinguish between paid and free versions of freemium services. They say services must find a balance between maximizing revenues and maximizing attractiveness, and that "the key is to create the right mix of features to segment out the people who are willing to pay, but without alienating the users who make up your free audience" (p.292). Thomes (2013) and Waelbroeck (2013) add that services can differentiate their free and premium versions through quality and value (e.g. better quality audio, longer listening times, more streams, or better song availability on the premium versions of a service). Thomes (2013) also mentions that users' attitudes towards advertisements are an important consideration with regard to not alienating consumers, because ads can be considered a "nuisance cost" (p.2).

While free, ad-supported streaming services can be effective at converting illicit downloaders to legitimate channels (Thomes 2013), Semenzin et al. (2012) suggest that most users will never upgrade to premium versions of the services, therefore it would be prudent for a service to consider seriously how to monetize the behaviour of users that will never pay. Waelbroeck (2013:5) says there is a large market of people "with low willingness to pay for music", and that while a freemium service can persuade people to upgrade by restricting certain features, if the restrictions are considered by users to be too severe, users who have no intention of paying for their music will be more likely to turn to illicit channels.

As Rupp and Smith (2004) and Hall and Rosson (2006) state, technology will always be at least one step ahead of the law. Even if an illicit downloading service is shut down (e.g. LimeWire, Pirate Bay, Napster), new ones will launch and consumers will find them, since consumers will tend to look for substitutes to meet their needs, as opposed to stopping their illicit activities altogether (Fox, Wrenn 2001, Gopal et al. 2004, d'Astous et al. 2005).

The premise behind monetizing consumers' free consumption behaviour is that if consumers will continue to obtain music without paying for it, then labels should give them the music for free via a legitimate, sanctioned channel, but monetize that behaviour. Monetization is accomplished by selling advertising that has to be

viewed by the consumer during the download process, by sponsorship agreements, or by affiliate sales commissions. Rather than lose out on income to illicit services (which charge fees or generate their own income through advertisements on their services and websites), or lose out on income altogether (where no monetization takes place by any party), revenue can be generated for the legitimate website or service, and stakeholders of recorded music can be compensated for their work (e.g. Clement et al. 2012). This does not always work in practice, as it is contingent upon the service being able to generate enough revenue; though many licensing agreements have also required upfront payments to labels to reduce the risk incurred by future defaults on royalty payments.

Fox and Wrenn (2001) suggest the music industry should consider the benefits of an ad-supported concept (which they refer to as a "broadcasting model") in the same way that ads support television and radio. Helberger et al. (2004) suggest that ad-supported models should be explored for online media content more generally. Examples of ad-supported services include Spotify and Pandora (for music streaming), Vevo and YouTube (for video streaming), and Google (for information searches).

Ad-supported streaming and download services are one method of monetizing free consumption behaviour. Branded sponsorship is another method; for example, a user could buy a soft drink and receive a code to redeem a free download from a music store. Yet another method is making commissions from sales on affiliated sites; for example, if a user wants to buy merchandise from a band whose song they just downloaded, the service could link to an online store and make a commission on the sale.

Though none of industry's three approaches alone has been able to reverse annual declines in revenue in the markets being investigated, it may be rather unrealistic to assume that the revenue gap that presently exists can ever be closed, particularly because today's market dynamics are different than those of ten years ago, and younger consumers are interacting with content in ways that did not exist a decade ago (Harris 2011c). It is therefore important to have a detailed and contextual understanding of consumer behaviour in this space so that the recorded music industry can preserve and maximize revenue from existing channels, and explore new business models for monetization.

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The next few sections will discuss the concept of ad-supported music download services, the area of focus for this thesis.

2.3   The potential of ad-supported business models

A major frustration for record labels, as one executive phrased it, is that "illicit downloading…is a multi-billion dollar business – we just don't have a piece of it" (Harris 2007:56).

Major labels are hesitant to invest in new business ventures that have no clear return on investment, and this explains much of the difficulty they have experienced attempting to combat file sharing via new business ventures (Bai 2003, Harris 2007). Labels nonetheless realize the importance of developing entirely new business areas, products, services, deal structures, and marketing methods.

Allowing music to be had for free does not necessarily cannibalize paid business models. Papies et al. (2011:778) found that ad-supported services in the German marketplace (a top 5 global market for recorded music) "attract new customers rather than cannibalizing incumbent business models", and have the potential to convert illicit file sharers to legitimate services.

Some labels use free music as a marketing tool, giving it away to promote an album, a tour, or an artist in general. In 2008, British band Coldplay allowed consumers to download a single from their upcoming album DRM-free and free of charge from their website during the week before the album's release (EMI 2008). When the album was released it reached the top of the album sales charts in seven countries.

IFPI's 2011 Digital Music Report (IFPI 2011:15) refers to numerous studies that have concluded that 'free' is the most commonly cited reason for using illicit downloading services, not service quality, music selection, or convenience. This implies that ad-supported models (which are also free) can compete on aspects other than free. It thus seems reasonable that legitimate free services can compete with their illicit counterparts, if the legitimate services can outperform them on aspects of service quality, for example.

Ad-supported services are not necessarily a panacea for file sharing. However, if these services can generate revenue from consumers that would otherwise

remain outside of the recorded music industry's economic value-chain, then the concept could have potential.

2.4   Multi-sided networks

Multi-sided markets/networks (including two-sided markets/networks) are concepts that have been discussed with increasing frequency in academic literature over the past decade. The concept is useful in describing the key structural and economic relationships of ad-supported music services (Thomes 2013, Waelbroeck 2013).

While there is apparently no agreed definition for a multi-sided network (Hagiu, Wright 2011), a multi-sided network can be generally defined as an economic network with two or more groups, and a platform that creates value for those groups by enabling interactions and/or transactions between the groups in the network. The usage of the platform by some/certain groups in the network affects the willingness of other groups to participate in the network (Rochet, Tirole 2006), and "the platform's value to any given user largely depends on the number of users on the network's other side (Eisenmann et al. 2006:94).

Multi-sided networks are a form of non-linear value chain. Comparing the linear concept of a value chain with a two-sided network, Eisenmann et al. (2006:94) say that "In two-sided networks, cost and revenue are both to the left and the right, because the platform has a distinct group of users on each side".

The concept of a multi-sided network is helpful in describing the structure of an ad-supported service. In the case of an ad-supported service, as shown in Figure 5, downloaders and advertisers form a two-sided network, with the ad-supported service acting as the platform that connects advertisers with downloaders and vice versa (dotted line). The service gives music to users for free, and collects money from advertisers. The network becomes multi-sided with the addition of labels, a key component of the network, because labels license music to the service, which is a critical factor in a service being able to secure a large catalogue of attractive music, and thereby more users (dotted line).
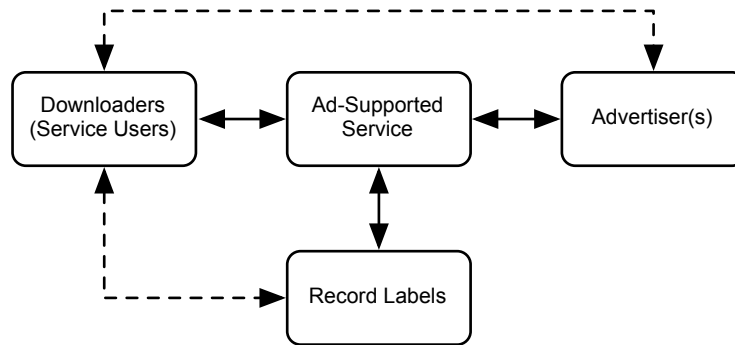
Figure 5: Illustration of an ad-supported music download service as a multi-sided network

A service's value to an advertiser is dependent on the number of users it has (Thomes 2013, Waelbroeck 2013), and a service's value to a user is dependent on the advertisers, since the availability of music on the service is dictated by advertising revenue. Waelbroeck (2013) suggests that in the case of an ad-supported music service, users are the most important aspect of the platform's (i.e. service's) development. Thomes (2013) notes that it is in a service's interest not to drive away users with excessive advertising, and that a balance needs to be struck between not having too many ads (which would drive away users) and not having too few ads (which would not generate enough revenue for the service).

In addition to managing the balance of advertising on a service, according to the economic concept of a multi-sided network, a service that restricts the number of downloads available to a user may diminish its value to a user, and at the same time may also diminish its value to advertisers because of the potential loss of user base.

Analogizing to a different industry, Rochet and Tirole (2006:645) say that "platforms court each side [of the network] while attempting to make, or at least not lose, money overall", with Eisenmann et al. (2006:94) giving an example thus: "video game developers will create games only for platforms that have a critical mass of players, because developers need a large enough customer base to recover their upfront programming costs. In turn, players favor platforms with a greater variety of games."

The literature reviewed on this topic is primarily concerned with economics, particularly with respect to pricing decisions and competition. Given that ad-

supported music download services are fledgling in many respects (i.e. ad-supported download services are not established enough to be competing with each other yet), and that this thesis is concerned with answering research questions about consumer behaviour, the research area of multi-sided networks was considered not directly relevant to this thesis.

2.5   An overview of ad-supported music download services

Although illicit file sharing services such as Kazaa, LimeWire, Gnutella, and others are actually ad-supported services themselves, they do not use their revenue to compensate artists, publishers, labels, or other music rights holders and stakeholders of recorded music, and are not sanctioned by the recorded music industry.

This thesis specifically covers legitimate services because it considers legitimate ad-supported music download services from the perspective of them being a potential alternative to illicit file sharing (free versus free).

The majority of ad-supported music download services that have been launched have only ever been available in the USA. Five legitimate, free, ad-supported music download services have been launched on a national scale in the markets of study. A sixth service, Ruckus, had a limited launch that was restricted to specific American college campuses. Each of these services had or continues to have licensing agreements with major labels, a key consideration for potential success, given that the majors control over 70% of the global market for recorded music (IFPI 2005a).

Table 1 shows the most prominent free, ad-supported music download services launched, from the founding of the first service in 2004.

	SpiralFrog	Ruckus	We7	QTrax	Guvera	Free All Music
Countries Available	USA, private beta in Canada	USA (colleges only)	UK	USA, Australia, Hong Kong, Malaysia, Singapore, India, New Zealand, Philippines, China, Indonesia, Taiwan	USA, Australia	Private beta in USA
Founded	2004 (launched in 2007)	2006 (ad-supported version)	2007	2008	2008 (beta launched in 2010 in USA)	2009
Operating Status	Defunct	Defunct	Download service is defunct (now streaming only)	Active	Active	Active
DRM	Copy songs to up to 2 devices, no burning to CD. Monthly rights refresh required	No copying to devices, no burning to CD, only free until graduation, then transitions to paid subscription	No restrictions	No copying to devices, no burning to CD. Monthly rights refresh required	No restrictions	No restrictions
Operating System	Windows only	Windows only	n/a	Windows only	n/a	n/a
File Format	128k Protected WMA	128k Protected WMA	128k MP3	128k Protected WMA	256k MP3	256k MP3
Songs in Catalogue (Approx.)	800,000	3 million	750,000 (as download service)	Varies by country	3 million	Not published
Ad Types	Banner ads, 90 second video pre-roll	Video pre-roll, other video	Banners, 10 second audio ad inserted at start of song for 4 weeks, banner ads	Banners ads	Branded player interface, banner ads	18 second video pre-roll, forced user endorsements

Table 1: A comparative overview of prominent free, ad-supported music download services as of January 2011

Fox and Wrenn (2001) refer to a technology/service called PlayJ, developed by an advertising technology company called EverAd (both apparently now defunct), which was essentially the world's first legitimate ad-supported music download platform, launched in March 2000 (EverAd Incorporated 2000). In exchange for users providing personal demographic information, information about their interests, and their email address, the service offered free MP3 downloads and

streaming, with advertising embedded in order to display on-screen ads whether the user was online or offline. With a catalogue of 65,000 music tracks, claims of "forty well-known music labels" being on board, and claims of "over five hundred advertisers" committing to the service at the time of its launch (EverAd Incorporated 2000), it is interesting that there appears to be very little information about major label involvement or the presumed ultimate demise of the service.

2.6   Challenges facing ad-supported music download services

Founded in February 2004 but only launching publicly in 2007, SpiralFrog was the first mainstream attempt at an ad-supported music download service. Media reports for the first few years of its existence touted the service as potentially being able to save the industry from illicit file sharing, by offering free mainstream music to consumers while generating revenue for operating costs and stakeholders through advertising.

The service ended up failing in early 2009 after it suffered a series of leadership crises, failed to generate sufficient revenue, and ran out of money.

SpiralFrog appears to have been a victim of unlucky timing, poor planning, conflicted management, and poor management of operating costs (see articles such as Sandoval 2007, filings in United States Securities and Exchange Commission 2007, Maher 2009). The company's business model was (necessarily at the time) based substantially on proprietary technology, which required it to invest a lot of money in research and development to restrict what users could do with downloaded songs (copying and distribution). This technology was required at the time by labels as a condition of licensing. The company started investing in the development of this technology in 2004, but by 2009, there was far more discussion in the industry, including by labels, about the merits of DRM and whether strict DRM was appropriate. By 2009, two DRM-free services had launched with major label deals (Guvera, Free All Music), each offering restriction-free MP3s to their users, albeit in extremely limited volumes.

In order to stay in business, ad-supported services must generate enough revenue to pay their operating costs, which include royalty fees that are due to stakeholders after the downloading and/or repeated playing of each song. Royalty fees can be substantial, and vary by country. A service that has many songs downloaded by its users, but little revenue from advertising, can quickly

find itself in financial trouble. For this reason, to ensure enough advertising and sponsorship revenue is available to cover royalties for downloads, newer services such as Guvera and Free All Music limit the number of songs a user can download (e.g. to one song per week).

Similarly, a service will most certainly fail unless it can attract a critical mass of regular and repeat users, as there is no benefit to a company placing advertisements on a service that has no users.

Having a large amount of desirable music content for users, including the latest hit songs, was an important aspect of SpiralFrog's business model in order to attract and retain users (see United States Securities and Exchange Commission filings). It continues to be an important consideration for any music download service being launched, whether paid or unpaid. However, a service with a large catalogue that limits the songs a user can download to one song per day, or week, or longer, may discourage regular and repeat interactions with the service due to a perceived lack of utility or convenience. Similarly, consumers are not likely to want to continue to use a service if they cannot use it to find the music they are looking for. This is an issue explored in primary research in this thesis.

Major labels have long been worried about free services cannibalizing paid music downloads, and music rights holders have worried about receiving appropriate royalties, which is why early services were required to have fairly strict DRM. Such DRM was seen to preserve the value of paid offerings, and also facilitated royalty accounting. While strict DRM perhaps provided comfort to industry, it arguably reduced the value seen in legitimate free services by potential users, because of the onerous restrictions compared with getting the same music, also for free, but illicitly. For example, DRM used on legitimate ad-supported services that have launched has variously prevented users from copying songs to their portable devices, burning a song to CD, or even from playing a song if they did not log into the service within a certain period of time to refresh their rights. Recent services Guvera and Free All Music avoid this by offering music in the MP3 format, although the number of songs a user can download is so limited that it has the potential to reduce the perceived value and utility of the services.

As discussed in Section 3.2.2 , it is important that songs are not restricted to playback on proprietary hardware or software unless such hardware or software

is widely used. Before 2009, all of the legitimate free music download services in the USA, the world's largest market for recorded music, offered files in the protected version of the Windows Media Audio format, making them incompatible with iPods, which were and still are by far the most popular digital music player in the USA. Device incompatibility can be a barrier to widespread service adoption, which is likely why Guvera and Free All Music offer files in the MP3 format (MP3 files can be played on practically any portable music device).

Delays imposed by the forced consumption of advertising (i.e. video pre-roll) are an important consideration. Literature on online advertising (discussed in Section 3.3) suggests that consumers have a lower tolerance for ads viewed online, given the task-oriented nature of the Internet. It is possible that many service users are not willing to wait for advertising to finish before they can download a song, or see the wait as not worthwhile in exchange for free music. For example, a service that forces users to watch a 30 second advertisement before each song download would be forcing the user to watch 5 minutes of advertising for a 10 song album. These issues are discussed in the literature review and investigated in primary research.

Users of SpiralFrog were allowed during the forced advertising period to browse for other songs on the service, but not all users may be interested in doing so in that situation, and so may look for entertainment outside the service. It could therefore be useful for a service to have additional features and interactivity beyond song downloads to maintain the interest and loyalty of users, which is a topic explored in primary research.

An ad-supported business model for free music downloads clearly faces some interesting challenges. While some attempts at such services have failed, and others are still at too early a stage to come to a conclusive answer on, it is important to note that just because one company fails, that does not mean that others may not succeed. For example, SpiralFrog's business model is not the only model available to choose from. Guvera and Free All Music use substantially different models than SpiralFrog, and it may well be that there will need to be a number of additional failures that result in iterative improvements to business models and the service experience, where aspects that work well are kept, and those that do not work so well are discarded or modified.

This thesis adds to the prospect of iterative improvements by addressing a gap in knowledge and literature pertaining to consumer behaviour and ad-supported music download services. It uses an academic framework (see Chapter 3) to identify what consumers consider to be fundamentally important aspects of this type of service.

2.7   Summary

This chapter provided an overview of the environmental climate in the music industry that is relevant to this study, discussing the economic role of new music formats, including the introduction and impact of music file sharing, industry's response, and the concept and challenges of an ad-supported music download service. It provided a brief overview of key challenges leading to the advent of ad-supported music download services, in order to provide sufficient context for the literature review in Chapter 3. Figure 6 shows the flow of research from Chapter 3 onward.

Literature Review

↓

Initial Model

↓

Draft Topic Guide

↓

Preliminary Interviews

↓

Final Topic Guide

↓

Group Interviews

↓

Inductive/Deductive Analysis

↓

Revised Model

↓

Survey Questions

↓

Final Model
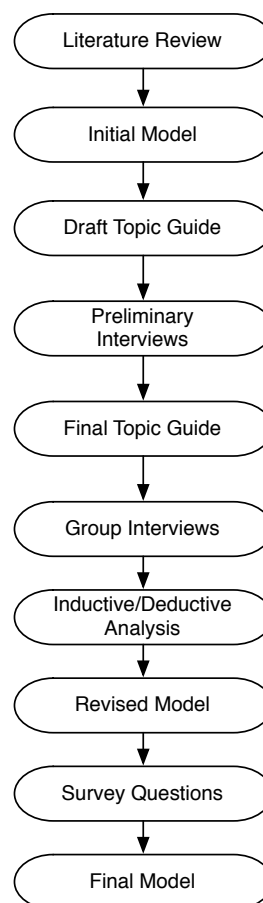
Figure 6: Flow of research from Chapter 3 onward

Chapter 3: Literature Review

The aims of this research are to understand what consumers in Canada, the USA, and the UK consider to be key characteristics of a legitimate, free, ad-supported music download service, and to model how these characteristics influence consumers' attitudes toward such a service.

In contributing to these aims and preparing for primary research, this literature review introduces relevant consumer behaviour theory, and discusses applicable models in order to propose an initial conceptual model for testing that is academically and contextually underpinned. The structure and progression of the literature review are shown in Figure 7.
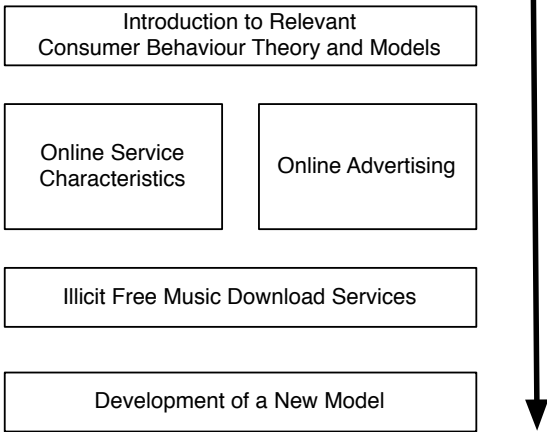
Figure 7: Structure and progression of the literature review

It has been necessary to take a broad-based topical approach to the literature review, due to the lack of literature related specifically to the research topic. In this way, richer context is made available for understanding the motivations behind the decisions consumers make and the attitudes they hold, which leads to a better-informed foundation for primary research.

3.1 Introduction to relevant consumer behaviour theory

This section introduces consumer behaviour theories that are relevant to the topics being explored in this thesis, in order to provide an academic underpinning for the research, as well as a contextual picture for the reader. The theories discussed relate to perception, motivation, evaluation in the consumer decision

making process, value, quality, and satisfaction, forming a foundation for linking theory to the topic of ad-supported music download services.

3.1.1 Perception and motivation

In this thesis, perception and motivation relate to key themes including ethics, risk, attitude, satisfaction, evaluation in the consumer decision making process, and value. While this is not a study on perception or motivation specifically, these concepts are briefly introduced here at a basic level to provide some context for the reader.

Perception is subjective, varies by individual, and can be affected by factors including culture, personal values, experiences, expectations, familiarity, and mood. Perception has a role in influencing a person's attitude and motivation, and people tend to interpret stimuli in a way that is aligned with their existing attitudes and beliefs, creating a "natural perceptual bias" (Walters 1978, Loudon, Bitta 1979, Wright et al. 2006).

Perception can be based on physical characteristics of an object (e.g. texture) or non-physical characteristics, referred to as surrogate indicators (e.g. price). Surrogate indicators may be used to evaluate objects, such as using price as a perceived measure of quality (Walters 1978, Loudon, Bitta 1979). In this thesis, perception also relates to concepts such as the perceived value of time, and the adequacy of a service in terms of its usefulness and ease of use – for example, using a surrogate indicator of forced video advertising to evaluate the cost of time spent to obtain music, or using the size of a music service's catalogue as a measure of its usefulness.

While more complex motivational models exist (see Schiffman, Kanuk 2000 for a basic discussion of this), this thesis is concerned specifically with attitudes, not motivation, so it is therefore more sensible to use a simple model of the motivational process as a general illustration of the concept.

The basic concept of motivation can be represented by a simple three-step linear process (see Figure 8), starting with a reason for taking a particular action. The process can be summarized as the identification of a need-based (or want-based) motive, which leads to an individual taking action to fulfil that need, which may lead to the fulfilment of the need as the end goal (Walters 1978, Williams 1981, Wright et al. 2006).
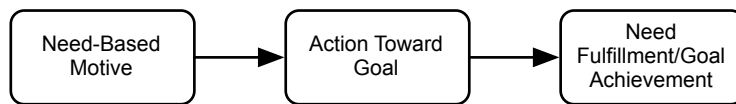
Figure 8: The basic motivational process

In this thesis, motivation is implicitly important, because the topic being investigated considers attitudes, and why consumers may or may not like or want to use a particular type of service based on characteristics that the service may or may not have.

The achievement of goals "requires effort, ability, and trade-offs" between multiple and sometimes conflicting goals, and consumers invest more effort in achieving their goals when there is more motivation to do so (Arnould et al. 2004:259). Frustration occurs when a person is prevented from achieving a goal, and, in some cases where conflicting motivations are present, a person may abandon the goal altogether.

3.1.2 Choosing which service to use

Understanding the basics of how a consumer evaluates options is important because this thesis explores what characteristics consumers consider to be important and/or valued in a free music download service, which presumably influences their choice or preference of which service to use.

Consumers have a choice between many different illicit and legitimate free music download services. It is therefore important to have a basic understanding of the decision making process, and how perceptions and attitudes may influence their evaluations, decisions, and even how they progress through the process.

The five-step consumer decision making process outlines the steps a consumer goes through when conducting a transaction, from recognizing an unfulfilled want/need, to evaluating the transaction after it takes place. Different authors refer to the specific steps of the process using slightly different terms, however the five steps can generally be summarized as the recognition of a need or want, information search, evaluation of alternative options, conducting the transaction, and post-transaction evaluation. Consumers do not always engage in all five steps – for example, habitual routine or experience can cause them to bypass some steps (Belch, Belch 2009).

Given the topic of this thesis, this section focuses on the evaluation of a service and its alternatives.

People have different levels of personal involvement in their decision making. These can be cognitive (mental processing of information) or affective (emotional). High involvement decision making typically involves more effort, more attention to detail, more complex information searching, and more importance attached to the decision (e.g. purchasing a house). Low involvement decision making involves people who place less importance on the decision, are less loyal, purchase quickly, and are more prone to switching (e.g. downloading music, frequent purchases) (Kotler, Keller 2005).

People are not typically able to make decisions based on an evaluation of all possible information. To do so would be extremely time consuming, result in sensory overload, and often would not be appropriate given the level of involvement (Fletcher 1987, Herbig, Kramer 1994, Zellman et al. 2010). Accordingly, consumers make decisions based on a few attributes as opposed to an extensive evaluation of all attributes (Zellman et al. 2010).

After searching for information, a consumer uses the information gained, existing knowledge, and past experience to develop an awareness set of options to choose from (a set of all known options). From this set, a shortlist (called an evoked, choice, or consideration set) is arrived at, sometimes in iterative stages. It is from this shortlist that the final choice is made.

Formal or informal criteria (attributes) and compensatory or non-compensatory heuristics (decision making rules) may be used to develop an evoked set and rank the options within it (Schiffman, Kanuk 2000). The use of heuristics, however, does not necessarily mean that a consumer's decision is objective, since decisions can be based on an individual's subjective perceptions. Attributes can be tangible or intangible, extrinsic (e.g. price) or intrinsic (e.g. style, features), or attitudinal. Brand loyalty, incentives, preferences, prejudices, attitudes, and expectations factor heavily into the evaluation of options (Williams 1981, Chisnall 1985, Laroche et al. 2003), and what an individual perceives as the "right" choice is often a subjective decision (Durgee, O'Connor 1995). Criteria and heuristics may also be influenced by demographics such as age, gender, income, and social class (Creusen 2010).

Different heuristics may be used depending on the level of decision making required. For example, the evaluation of a free music download service likely involves different criteria than the evaluation of an online banking service, and might involve different criteria than a paid music download service.

Compensatory heuristics require the consumer to weigh and sum an option's attributes, in order to determine the "winner". This type of rule is based on the premise that positive attributes can neutralise, or compensate for negative attributes. However, this is not always the case, as sometimes a positive attribute cannot compensate for a negative evaluation of a criterion that is considered to be vitally important (Zellman et al. 2010).

Non-compensatory heuristics are often used as a strategy to simplify decision making (Fletcher 1987). They require that an option be eliminated if it does not meet one of the criteria set by the consumer. Complex non-compensatory heuristics can include setting a minimum acceptable cut-off level that an attribute must meet ('conjunctive' for a positive evaluation, or 'disjunctive' for a negative evaluation), or ranking attributes by their importance and then judging the shortlisted options against the most important attribute (lexographic strategy). According to Fletcher (1987), low involvement decision making typically involves a small number of non-compensatory attributes, and consumers require less information upon which to base such decisions.

Different criteria can be used to accept or reject an option at different stages of the evaluation process (Abougomaah et al. 1987). Individuals have differing views about what attributes are important, and may select the same product presented in the same environment for different reasons, based on their individual goals, motivations, and decision frames. Consumers tend to make their decisions after considering the attributes they consider to be most important, sometimes also considering less important attributes to "increase confidence" in their choices, or in situations where they are unable to arrive at a choice based on their most important criteria alone (Zellman et al. 2010). Fletcher (1987) says it is important for products to be "acceptable" to consumers based on "relevant criteria", and that once a product is part of a consumer's shortlist, relatively minor criteria can influence choice between options. The presentation of product information in advertising can also influence a consumer's decision frame (Burton, Babin 1989).

3.1.3 The concepts of value, quality, and satisfaction

Consumers like to feel that they have made good decisions, and in their judgement of value and satisfaction, they like to feel that the investment of their time and effort has been worthwhile (Williams 1981, Holbrook 1999, Schiffman, Kanuk 2000). Where a satisfied consumer is more likely to use a service again, a dissatisfied one is more likely to consider alternative options when a similar need arises in future (see Section 3.1.4). Therefore in order to encourage user retention and frequent repeat usage of a service, it is important that the service provider attempts to meet consumers' needs, and minimize cognitive dissonance (Cai, Jun 2003, Park, Kim 2003, Yang et al. 2004). This is also an important consideration given that the cost of attracting and retaining users can be an expensive endeavour.

This section introduces the concepts of value, quality, and satisfaction, in an evaluative context. These concepts are relevant because they provide insight into why consumers might value or hold particular attitudes towards certain service features and characteristics in an ad-supported music download service.

Value, quality, and satisfaction are subjective and specific to individuals. Researchers generally agree that quality, value, and satisfaction are linked in some way, though the nature of these links is acknowledged as complex and ambiguous. There is still considerable debate about and investigation into what the specific differences and relationships are between each (e.g. Liljander, Strandvik 1993, Holbrook 1999, Cronin Jr. et al. 2000), with no definitive answer at present.

Literature broadly suggests that perceived value, quality, risk, and satisfaction can all influence behavioural intention, whether directly or indirectly. Cronin Jr. et al. (2000) say that accordingly, these aspects should be jointly considered in outcome strategies. These concepts are discussed in this thesis to provide context, as opposed to attempting to make an explicit definition of value or quality or satisfaction or to develop an explicit formula for specific behavioural outcomes in the context of a music service.

The concept of value

Value is discussed here from the point of view of what consumers value, not what their personal values are.

Value is a complex concept that is relative and subjective (Zeithaml 1988, Holbrook 1999). Due to its complex nature, it does not yet appear to have a commonly agreed definition or way of being measured in academic literature. It is instead often defined via conceptual triangulation, with various authors approaching the concept from different perspectives, as discussed in this section.

Zeithaml developed a well-referenced conceptualization of value, referred to by Sánchez-Fernández and Iniesta-Bonilloas (2007) as a uni-dimensional model with an emphasis on benefits versus sacrifice. She defines perceived value as "consumers' overall assessment of the utility of a product based on perceptions of what is received and what is given" (Zeithaml 1988:14) – in essence, the seemingly objective outcome of a cost-benefit equation. Receiving what one wants, at a low price, and at an acceptable quality for the price paid, are key themes that underpin her defined concept of value. This is supported by literature on attractive pricing (e.g. Chu, Lu 2007).

Numerous researchers have based their value conceptualizations on Zeithaml's model, essentially treating value as a function of perceived quality and perceived sacrifice; some have also added risk to the equation. Such studies tend to focus on extrinsic factors such as store name, brand name, the object's country of origin, and price (Cronin et al. 1997, Brady, Robertson 1999, Argawal, Teas 2001, 2002, 2004). While these and other researchers have found these value antecedents to be highly relevant, their strength can vary based on cultural and economic factors (i.e. by country), as well as by the item being surveyed. For instance, Argawal and Teas (2002, 2004) found that country of origin can be an important perceived quality measure for some objects and not others, and Brady and Robinson (1999) found that for the same item, consumers in different cultures may place more or less emphasis on some factors (e.g. perceived sacrifice), and that one's concept of value can differ by individual and context.

Cronin et al. (1997) argue that focusing on only extrinsic cues to determine cost versus benefit can be limiting because consumers do not always choose the highest quality or highest value service. Indeed, some researchers have stressed

that there is an experiential element to value, and that value is multi-faceted (see Chen, Hu 2010 for sample list). For example, Babin et al. (1994) focus on experiential aspects of hedonic and utilitarian value in their study, considering value's "intangible and emotional" aspects, suggesting that shopping experiences can be valued in terms of fun versus chore (hedonic) or successful versus unsuccessful (utilitarian). Indeed, it would be reasonable to suggest that where relatively objective measures are equal when comparing services against each other, experiential value could be a differentiator in the choice to use a particular music download service.

Cronin et al. (1997) also found that perceived service value is important in the consumer decision making process, and that perceived value can explain purchase intentions more than perceived quality or sacrifice alone. Essentially, they found that value as a sum of various antecedents is a more useful predictor of intention than the antecedents themselves. This is an important consideration because as mentioned in preceding paragraphs, the antecedents of value can differ based on factors such as item or country, so Cronin et al.'s research confirms that it is value as a holistic concept that is important, implying that its antecedents can be incorporated as contextually appropriate.

Uniting researchers' typically separate conceptualizations of value (i.e. objective/utilitarian/functional versus subjective/hedonistic/experiential), Holbrook (1999) developed what Sánchez-Fernández and Iniesta-Bonillo (2007:428) refer to as a multi-dimensional model, involving complex relationships between "perceived price, quality, benefits, and sacrifice" as well as intangible and emotional aspects.

Holbrook defines value as an interactive consumption experience that provides need or want satisfaction, and takes place between a subject and an object. According to Holbrook, value can be subjective (i.e. dependent on one's experience with an object), or objective, where the value is held within an object itself. It can also be self-oriented, where the subject is concerned about the effect value has on them personally, or other-oriented, where the value is in the benefit that someone else receives. Intrinsic value exists when an object is appreciated for its own sake (e.g. for music downloading, the actual songs that are downloaded), and extrinsic value is when an object is appreciated for its utility or functionality, as a means to an end (e.g. a convenient music download service

that allows a person to obtain music). Sánchez-Fernández and Iniesta-Bonillo (2007) say that Holbrook's typology is beneficial because it accounts for situational value in terms of utility and hedonism, and accounts for interaction between a subject and object, rather than taking a purely cost-benefit approach.

As discussed later in this section, literature suggests that there is an ambiguous relationship between value, utility, cost, quality, and satisfaction. While they are all related, these relationships are contextual and subjective, and in the literature as a whole, described relationally. For example, utility is an important aspect of value, but it is not the only means of assessing value, nor is it a universal evaluation criterion. Price can be an important consideration in assessing value, but value can also be perceived in non-financial terms (Galanter 1990, Sánchez-Fernández, Iniesta-Bonillo 2007).

Galanter (1990) found that non-monetary situations can hold positive or negative value in the mind of the consumer, therefore a lack of financial cost does not automatically equate to nil cost, or result in better value to the consumer. Time and effort are also forms of perceived cost.

Value is not necessarily a constant or consistent perception. It can be predicted, expected, or realized. Oliver (1999), in discussing the comparative nature of value, says different criteria may be used to judge the value of an object before a transaction takes place (based on desired value) and after a transaction takes place (based on an evaluation of delivered value). He notes that there must be a basis for comparison in order to determine value, whether that value is seen as subjective or objective.

Holbrook's value typology (see Table 2) describes efficiency, play, excellence, aesthetics, status, ethics, esteem, and spirituality as "logically distinct [types] of value in the consumption experience" (1999:12). It describes value as "active" when it is "something done by a consumer to or with a product as part of some consumption experience" and "reactive" when it is something that is "done by a product to or with a consumer as part of some consumption experience".

		Extrinsic	**Intrinsic**
Self Oriented	Active	Efficiency (e.g. ratio of outputs to inputs, convenience)	Play (e.g. fun)
	Reactive	Excellence (e.g. quality)	Aesthetics (e.g. beauty)
Other-Oriented	Active	Status (e.g. success, impression management)	Ethics (e.g. virtue, justice, morality)
	Reactive	Esteem (e.g. reputation, materialism, possessions)	Spirituality (e.g. faith, ecstasy, sacredness, magic)

Table 2: Holbrook's Typology of Consumer Value (Holbrook 1999)

While the typology appears to be well-cited, it has its limitations. Sánchez-Fernández and Iniesta-Bonillo note that the complexity of the typology limits its "operationalization in capturing certain types of value – such as ethical value and spiritual value", and that aside from the "efficiency" factor, it still focuses predominantly on perceived (intangible) benefits (2007:442). Given that this thesis is not concerned with spirituality, and in fact focuses on aspects such as utility and efficiency, this is not seen as a limitation for the purposes of this research.

Holbrook's typology is useful in showing the difference between the end goal the consumer seeks (e.g. having music), and the instrumental, functional behaviour that a consumer must take to reach that goal (the drive/action part of the motivational process in Figure 8). Similarly, it shows that there is a different type of value based on whether the music that is downloaded is the object being considered, or whether the download service is the object being considered. Considering value as it relates to music downloading by applying this typology shows that the value consumers see in an online music download service (a utility that is a means to an end) would be self-oriented, active, and extrinsic.

Some consumers derive entertainment value (fun) from downloading music on the Internet (Peng et al. 2004, Chu, Lu 2007, Ramayah et al. 2009), and Chu and Lu say that for Taiwanese users of commercial music download services, "perceived usefulness, playfulness, and price are the key determinants of perceived value of online music". This has been mentioned here simply for clarification, because, as stated by Chu and Lu, they are looking at the value of

the music as the object, not the service as the object. As Holbrook says of his typology, such intrinsic value is logically distinct from the extrinsic value of the service.

It is reasonable to suggest that the perceived value of a service is also related to how a person evaluates a service, and how motivated they may be to use a particular service. For example, if a user chooses a service to download a specific song, they might value certain aspects of utility and convenience much more than if they were to go to a service looking for information about various artists (i.e. discographies). These are aspects of value that are examined in primary research.

The value of time

Time has value to consumers both online and offline (Leclerc, Schmitt 1999, Ryan, Valverde 2005). This value can be perceived as positive (convenience) or negative (wasted) in the case where a person spends more time than they deem necessary to complete something (Ryan, Valverde 2005, Kunze, Mai 2007).

The perception of time is subjective, and people are generally risk averse where loss of time is concerned (Leclerc, Schmitt 1999). For some, the expectation of how long a process should take is less important than how long they desire it to take (Ryan, Valverde 2005). Leclerc and Schmitt say the value of time is contextually dependent because a person's perception of the passage of time and how a person reacts to the passage of time are dependent on the situational context as a whole, and what stage they are at in a process when forced to wait. Accordingly, a delay may be perceived as longer or shorter than the actual time taken (Leclerc, Schmitt 1999, Rose, Straub 2001, Dabholkar, Sheng 2008), and the perceived time taken might be seen as a cost or a benefit of using a service. This is relevant for exploration because music cannot be downloaded on a service without some sort of waiting period (whether a few seconds, minutes, or hours), whether that waiting period is imposed by the speed of the Internet connection being used, or the forced consumption of advertising on a free service.

Delays online can be perceived/interpreted as waiting time (i.e. for pages to load or files to download), having to take time to deal with online advertising (watch it or make it go away), having to take extra time to navigate around a website or

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conduct more searches (e.g. because of poor design), having to repeat a transaction because of a process failure, having to complete website registration forms, or having to install software to access content (Ryan, Valverde 2005).

Rose and Straub (2001:72) found that "There are differential responses to delay, depending on attribution [of the delay]", for example, whether the person experiencing the delay attributes it to their slow Internet connection or the online retailer having poor IT capabilities. They also found that delays have the ability to negatively affect consumer attitudes toward a brand, website or service, and can cause consumers to abandon the site they are on, but that download delays do not have a negative impact on attitudes toward the online retailer. Their research, however, was conducted when 56k dial-up modems were the most common way of connecting to the Internet by the average American consumer (when page loading delays of up to 30 seconds were not unheard of). They also note that research subjects in their lab-controlled experiment were only shown a particular website with delayed loading once, and were not able to make delay comparisons with other retailers' websites or select their own pages to view. Dabholkar and Sheng (2008) found that online delays cause lost business and website abandonment, but found no conclusive research on how attitudes towards brands or service providers were affected as a result of delays.

Given that much of the research on wait times considers only page loading and download time, it is reasonable to assume that the other types of delays mentioned by Ryan and Valverde could also have the same effect of driving consumers away. Primary research for this thesis therefore considers where wait times might arise in an ad-supported music download service (i.e. forced ad consumption, download time), and how this might affect attitudes toward such a service via convenience and attitudes toward advertising.

The concept of quality

Quality is an "externally mediated perception […that…] can be defined in terms of a difference from the ideal" (Oliver 1999:53), so is relevant to pre and post-transaction evaluations. Quality, value, and attitudes are linked, and like value, quality can be predicted, expected, or realized, though Zeithaml (1988) describes quality as being more objective than value.

While quality is a perception that holds value (Oliver 1999, Cai, Jun 2003), its relationship to value is not explicit in the literature, with some researchers accounting for it as an antecedent of value (e.g. Cronin et al. 1997, Brady, Robertson 1999, Argawal, Teas 2002) and others accounting for it as a component of value (see Sánchez-Fernández, Iniesta-Bonillo 2007).

Oliver found in his review of literature that as quality increases, so do perceived value and utility, resulting in a more positive consumption experience. Chu and Lu (2007) found that the perceived usefulness of an object is important in the consideration of quality.

Cronin et al. (2000:209) found that perceived service quality is an important factor affecting perceptions of the value of a service. They also say that since quality, value, and attitude are related to each other, companies that wish to use a value-added strategy to encourage particular service choices must consider those three aspects jointly, as well as satisfaction. Literature that attempts to define 'quality' as a standalone concept has not yet appeared to do so effectively. As such, this thesis links the concept of quality to a music download service by using a service quality framework as a guideline to explore what service aspects might be relevant.

Since perceived value and quality are not necessarily a result of financial costs incurred, these concepts will be considered in terms of users receiving what they want, with acceptable features, at a low perceived cost (i.e. what might constitute a positive post-transaction evaluation of a service/service experience).

The concept of satisfaction

Satisfaction is subjective, and variously described as a pleasurable emotional response based on the extent of one's expectations being met (Westbrooke, Reilly 1983, Oliver 1999:55, Hansemark, Albinsson 2004:41). Cronin et al. (2000:204) describe service satisfaction as "the degree to which a consumer believes that the possession and/or use of a service evokes positive feelings". Liljander and Strandvik (1993:7) describe it as being "connected with a specific transaction", while McDougall and Levesque (2000:395) say there is "considerable debate as to whether customer satisfaction is an attitude or a relatively transient consumption-specific construct, or whether it is an outcome or an evaluation".

Satisfaction is related to the consumer decision making process in the sense that it relates to cognitive dissonance. While satisfaction can help to promote user retention, it does not guarantee it (Hansemark, Albinsson 2004).

A service's quality and features can influence satisfaction (Hansemark, Albinsson 2004), as can its perceived value (Cronin Jr. et al. 2000). People also desire satisfying experiences, not just products or services as objects in themselves (Abbott 1955 in Holbrook 1999).

While the literature does not define these relationships explicitly (only relationally), based on what has been said, it is fair to say that a consumer's attitude toward a free, ad-supported music download service could be related to their perceived future satisfaction with using the service.

It has been previously shown from the literature that quality, value, and satisfaction are related to each other, and a perception of increased quality can lead to an increase in perceived value and utility, and therefore increased satisfaction. This provides justification for exploring a framework for the perception of the quality of a music download service (see Section 3.2.1), focusing on specific aspects of quality that should be taken into consideration.

By developing a better understanding of what is required of an online service to encourage the perception of good quality and value, it is anticipated that a better contextual understanding of what constitutes user satisfaction will also be gained. In this sense, it will be possible to provide a contextualised academic framework for understanding consumer attitudes towards free legitimate, ad-supported music download services.

3.1.4 Switching behaviour

According to Schiffman and Kanuk (2000), there are three types of transactions that consumers conduct: trials (first-time transactions), repeat transactions (i.e. over the short to medium term), or transactions that are part of a consumers' long-term commitment. In the case of this thesis, a 'transaction' is considered to be an instance of usage of a service.

Satisfaction with the service relationship increases commitment to a transactional site (Park, Kim 2003), and loyalty and commitment to a service can encourage repeat usage. Park and Kim give examples of research literature which says that

"service quality, perceived value, and satisfaction are considered as antecedents of commitment" (Park, Kim 2003:21) and their own study found that aspects such as perceived security and user interface quality also affect user commitment to a site.

Consistent with the previous discussion on the value of time, Constantinides' literature review found that lengthy transactional processes irritate online consumers and can negatively influence attitudes toward a site (Constantinides 2004). In the case of a music download service, the transaction duration could be considered as downloading time, or the time it takes to complete the download from when the song or album is chosen (including forced consumption of advertising).

As mentioned previously, dissatisfied customers may look for alternative options to meet their needs. There are a number of factors that can influence a customer's decision to stay with or switch away from a service, and knowledge of these factors is useful because it suggests what might attract or repel users. Further, an understanding of what influences switching behaviour is useful, because free music download services typically make use of low involvement decision making, and in some markets (e.g. the USA), there are a number of illicit and legitimate alternatives in the free service space.

Recent comprehensive literature on consumer switching behaviour appears to be limited primarily to (offline) sectors such as car insurance, banking, utilities, and financial services, some of which are considered mature markets with higher involvement and low levels of switching (e.g. Antón et al. 2007, N'Goala 2007, de Matos et al. 2009). However, there is also a body of literature for online services, drawing out many common themes, and therefore implying that the factors found in literature about offline services could reasonably be applied to an online music service. Whether or not such factors translate directly is open to discussion, given that an online music service has lower consumer involvement/investment than a banking service, for example, and a free music download service would have even less involvement and likely be prone to more frequent customer switching as a result. Nevertheless, this section aims to provide insight into key switching factors generally, illustrating the challenges that services face in acquiring and retaining customers.

Customers maintain relationships because they "want", "need", or "ought to do so" (N'Goala 2007:514). When customers decide to end their relationship with a service provider, they may switch to an alternative provider as part of a gradual process (Antón et al. 2007, N'Goala 2007), or they may be motivated to switch more quickly, particularly if there has been an incident that causes the consumer to have an angry reaction. Switching costs are perceived costs (Jones et al. 2000), and can be monetary or non-monetary (N'Goala 2007).

Table 3 outlines some perceived costs and motivations for switching, from the literature.

Perceived Costs	Time, effort, financial risk, loss of relationship with the service provider, loss of loyalty incentives, learning curves (Antón et al. 2007, de Matos et al. 2009, Clement et al. 2012)
Motivations to Switch	Inequitable relationship, breach of trust, suspicion, poor value for money, poor service quality, core service failures, inconvenience, inconsistent service, dissatisfaction, poor customer service, an incident provoking anger, awareness of more attractive alternatives, boredom (Lopez et al. 2006, Antón et al. 2007, N'Goala 2007)

Table 3: Perceived switching costs, and motivations to switch

Perceptions of the quality of a service can affect attitudes toward the service (Bansal et al. 2005, Clement et al. 2012). Some factors, such as unfair pricing, anger, suspicion, and a poor cost-benefit perception are more immediate triggers of switching (Antón et al. 2007, Clement et al. 2012). Customers that frequently use a service are able to navigate the service and learn skills in doing so that cannot necessarily be transferred to a competing service, which is a barrier to switching (Lopez et al. 2006).

Cumulative satisfaction "is the best predictor of loyalty" (Jones et al. 2000, de Matos et al. 2009:507). While satisfaction affects loyalty to a website more than switching costs (Methlie, Nysveen 1999), "loyalty increases only after satisfaction exceeds a certain level", and satisfied customers are not necessarily loyal (Hansemark, Albinsson 2004, de Matos et al. 2009:509). Loyal, satisfied customers may decide to switch service providers, and conversely, dissatisfied

customers may choose to stay with their provider. The higher the switching costs, the more loyalty tends to be shown to the incumbent service, and the less influence dissatisfaction has on switching (de Matos et al. 2009). Literature on switching behaviour by the authors noted in this section indicates that users who have just tried a new service are more likely to switch from it, and some consumers display variety seeking behaviour, and will try other services simply because they exist.

It can be an expensive undertaking for a company to acquire and retain customers. It is important therefore to consider the advice of Hansemark and Albinsson (2004:42) who studied the provision of customer satisfaction and retention from the point of view of employees, saying that "while customer acquisition strategies are easily copied by competitors, retention strategies are not".

Customers who have a longer relationship with a company are typically more valuable and less likely to switch to a competitor. They tend to have more interaction and involvement with a service, less sensitivity to cost and unmet expectations, and are more likely to have a positive attitude about the service (Lopez et al. 2006).

Building up a positive relationship with users is an important part of building up perceived switching costs, because when core services cannot be delivered, a user's involvement and commitment to a service may be the only factors that will save the relationship in the short term (Lopez et al. 2006, N'Goala 2007).

Service providers should make efforts to discover users' tolerance of perceived costs, and avoid exposing them to negative experiences (Antón et al. 2007). They should also have plans in place to resolve effectively any serious problems that may arise, in order to preserve the customer relationship (Antón et al. 2007, N'Goala 2007).

Switching costs are important to take into account when considering the possibility of migrating illicit service users to legitimate ad-supported services (Walsh et al. 2003, Kunze, Mai 2007). A new service cannot directly influence a user's experience with their current service, but it can manipulate the perception of cost versus benefits in a possible switch, by marketing itself as a better alternative to the service that the targeted consumer is already using.

Offering music downloads to consumers at an attractive price is an issue often encountered in literature on music purchasing and downloading. The cost theme is typically approached from the perspective of how much users are willing to pay, and what they expect in return for their money (e.g. Walsh et al. 2003, Amberg, Schröder 2007).

While authors such as Chu and Lu discuss the importance of offering an attractive price to consumers in a monetary context, there are still various non-monetary costs related to the usage of unpaid services, such as time, effort, convenience, and opportunity cost (Chu, Lu 2007, Plouffe 2008).

In introducing their approach to the cost-benefit relationship of "hedonic IT services", Chu and Lu refer to Dodds and Monroe's value intention framework (Dodds, Monroe 1985), which says that the willingness to perform a particular action is directly influenced by the perceived sacrifice and value of the outcome. It is therefore reasonable to suggest that a free service must have an acceptable non-monetary cost in exchange for free music. Accordingly, it would be unreasonable to assume that a service will be successful simply because it offers free music, or a virus-free experience, or songs without DRM, because there may be other non-monetary costs that a user considers to be more important, which is an issue that is explored in primary research. According to Herbig and Kramer (1994:51), if a service "has no real advantages or superior functions or features to set it off against other innovations which are competing for the consumer's attention, serious review must be made of the merit of spending the money to develop or introduce such an innovation".

Clearly there are many important factors to be considered when it comes to switching behaviour for online music services. In relation to value, service quality, and satisfaction, it is important for a new service to appear attractive to the consumer, engender a positive service experience, and give the perception that it is worthwhile to invest time and effort in using. Not all of the perceived costs and switching motivations outlined in this section may be relevant for music download services, so this is worth exploring in primary research.

Thus far, this literature review has introduced consumer behaviour theories that are relevant to the topics being explored in this thesis. These theories relate to perception, motivation, evaluation in the consumer decision making process,

value, quality, and satisfaction, and form a conceptual foundation for the remainder of the literature review. Subsequent sections build on this foundation by introducing the concept of attitude, examining various predictive behavioural models and assessing their relevance to this research, examining the variables that are relevant for inclusion, and finally, proposing an initial conceptual model for testing in primary research.

3.1.5 Developing an appropriate model of attitudes

This thesis identifies and explores the key characteristics that influence consumer attitudes toward the concept of a free, ad-supported music download service, and develops a model to that effect.

Early-on in this research, the initial aim was to predict whether consumers would use such a service. Through reflection and primary research, it was found that that aim was not practical. Although it would be possible to measure attitudes, it would not be possible to measure intentions or behaviour for a service that few people were aware of, given the scope of the research and available resources. This study nonetheless builds a solid framework for future research on intention and behaviour, and discussion of this change of approach can be found in Section 5.1. The rest of this section focuses on the original approach taken for the development of a model.

A simple definition of attitude is that it is an "overall evaluation" (Ajzen, Fishbein 1980:55) involving beliefs, perceptions, and opinions about an object or behaviour.

Attitude is a concept that has been discussed in academic literature for well over a century, with much of the concept's development taking place from the 1930s onward across different disciplines, but mostly related to specific, rather than general applications. In the quest for a generalized predictive behavioural model, a more generic view of attitude theory linking attitude, intention, and behaviour was developed in the late 1960s and 1970s (Ajzen, Fishbein 1975, Ajzen, Fishbein 1980). Before the late 1960s (and Ajzen and Fishbein's comprehensive analysis and development of a general theory to predict behaviour), attitude was described, measured, and defined in different ways by different researchers. This was typically highly individualised to the topic being studied, leading to questionable validity, reliability, and generalizability of research techniques and

theoretical findings (Ajzen, Fishbein 1975) as they related to actual comprehension and explanation of attitudes.

Attitudes can be formed and influenced via classical conditioning (positive/negative reinforcement), personal experiences, reference groups, and perceptions. Though they tend to be consistent and persistent, they can change, and are not necessarily a predictor of behavioural outcomes in and of themselves. People may behave in ways that are inconsistent with their attitudes for a number of reasons, such as the actual ability to pursue a particular course of action, or competing demands for resources. Similarly, two people may hold the same attitudes but take different actions, or take the same actions but hold different attitudes (Ajzen, Fishbein 1975, Ajzen, Fishbein 1980, Williams 1981). People can also hold attitudes about objects they do not have possession of or experiences with (Liljander, Strandvik 1993).

Legitimate, free, ad-supported music download services are currently accessible to millions of people. In its consideration of modelling attitudes toward this type of service, this thesis explores why people might not be using them (e.g. because of delays caused by advertising, or even the presence of advertising in general). To date, little academic consideration has been given to the consumer point of view (as opposed to the corporate/financial modelling point of view), because industry's focus has tended to be on profitability first and foremost. This topic has typically been discussed and considered from the financial end first, rather than the consumer point of view.

In developing a contextually appropriate model for this thesis, consideration is given to the extent to which existing models can answer the research questions that have been posed, and whether any models can be applied as-is, or modified/extended to be made fit for purpose. Given the diverse areas touched upon, careful consideration must be given to which models are most appropriate for addressing the aim and objectives of this research.

Thus far there do not appear to be any published models that could be directly applied to the research area in question. Some papers on illicit downloading have made reference to (and adapted) predictive behavioural models such as the Theory of Reasoned Action and the Theory of Planned Behaviour (e.g. d'Astous et al. 2005, Shang et al. 2008, Plouffe 2008, Woolley 2010, Aleassa et al. 2011,

Yoon 2011), but these adaptations are not specific to the context of this thesis, which considers a free legitimate service, with mandatory advertising consumption as a feature. The approach taken in this thesis has therefore been to consider existing well-referenced predictive behavioural models used in tangentially related research, as a starting point (i.e. free, illicit downloading), where those models or their adaptations have been tested in the field and shown the ability to accept additional contextually appropriate constructs.

Given that this research is about understanding and modelling attitudes toward a particular type of service (which will provide a better basis upon which to explore usage intentions), it would seem most prudent to examine models whose attributes allow for the direct and/or indirect consideration of the themes that arise out of this literature review, including having an explicit construct for attitude as a concept that directly influences behavioural intention. The Theory of Reasoned Action (TRA), Theory of Planned Behaviour (TPB), Technology Acceptance Model (TAM), and Decomposed Theory of Planned Behaviour (DTPB) were seen as best fitting these basic criteria, and therefore are examined in more detail.

Other models such as Task Technology Fit (TTF), and the Unified Theory of Acceptance and Use of Technology (UTAUT), have been excluded from the shortlist because they are predominantly task-based models with no explicit construct addressing attitude as a concept in itself that influences intention. The Theory of Interpersonal Behaviour (TIB), which draws some influence from TRA, was excluded because its application in the field appears to be quite limited in frequency and scope, with very little literature to draw on, and many applications only using comparatively small sections of the model, as opposed to testing the model in its entirety. The Web Acceptance Model (Castañeda et al. 2007) has been excluded because it is a derivation of TAM, and only gives a generic consideration of online experience.

3.1.5.1 Theory of Reasoned Action (TRA)

The Theory of Reasoned Action (Ajzen, Fishbein 1980), shown in Figure 9, is a predictive behavioural model which stipulates that a person's intention can be a predictor of their actual behaviour, and that intention is affected by a person's attitude toward a behaviour, as well as their subjective norm. An explanation of the model's constructs is given in Table 4.
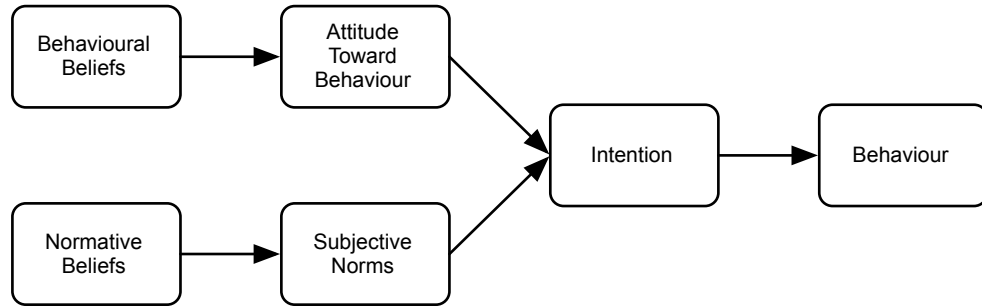
Figure 9: The Theory of Reasoned Action (Ajzen, Fishbein 1980)

Construct	Definition
Behavioural Beliefs	"The beliefs that underlie a person's attitude toward the behavior"
Normative Beliefs	The "beliefs underlying a person's subjective norm"
Attitude Toward Behaviour	An "individual's positive or negative evaluation of performing the behavior"
Subjective Norms	A "person's perception of the social pressure put on him to perform or not perform the behavior in question"
Intention	"An indication of a person's readiness to perform a given behavior"
Behaviour	"The manifest, observable response in a given situation with respect to a given target"

Table 4: Construct definition for the Theory of Reasoned Action (Ajzen, Fishbein 1980, Ajzen 1991)

TRA has served as a basis for subsequent well-referenced models such as the Theory of Planned Behaviour and Technology Acceptance Model. Ajzen and Fishbein's books outlining the development of TRA are comprehensive, therefore this section is necessarily descriptive, in order to provide an illustration of their foundation/concept of a predictive behavioural model, and their reasoning, rather than a critique. A more critical view is given in Section 3.1.5.3 , which discusses a more relevant derivation of TRA that is used for primary research in this thesis.

TRA was developed as a result of decades of prior research into attitude theory and measurement. The model seeks to understand the reasons behind attitudes and intentions, in addition to measuring them, and is based on the notion that

people are reasoned in their decision making (in the way they make use of information and their own beliefs) and can act of their own free will.

The original works outlining the model's conceptualization (Ajzen, Fishbein 1975, Ajzen, Fishbein 1980) are well-referenced across literature addressing predictive behaviour. The model is significant, suggest its authors, because it introduced a generalized framework for predicting behaviour based on attitudes; one that could be applied across different fields, such as social psychology and consumer behaviour. Indeed, by reading the original works (which make reference to many studies, including prior seminal works related to attitude and social psychology), it seems evident that while in the 20th century there was much research into the nature of attitudes and explaining behaviours, studies until the late 1960s (particularly until Fishbein's work immediately preceding TRA) tended to be highly individualised, providing 'general' explanations about attitudes that were in fact specific to individual studies and could not be generalized to other topics or fields (see Ajzen, Fishbein 1975 for a thorough discussion of relevant literature).

Ajzen and Fishbein discuss the difference between behavioural actions and behavioural outcomes, noting that outcomes can be a sum of a group of actions, but should not be confused with the actions themselves. For example, they mention that "losing weight" is an outcome, not an action. Actions that sum to the outcome of losing weight could include 'go running every day' or 'limit the number of calories I eat'. Similarly, they say that "dieting" is an outcome that results from specific behavioural actions, and it is important to ensure that beliefs, attitudes, subjective norms, and intentions are measured with respect to the same target action (as opposed to outcome) in order to be reliable and valid.

Beliefs about an object are "formed by associating it with various characteristics, qualities, and attributes" (Ajzen, Fishbein 1980:62), and the sum of a set of beliefs about an object could be considered to represent an attitude toward the object, just as the sum of beliefs about a behaviour could represent an attitude toward the behaviour.

Beliefs, like attitudes and intentions, can change over time (Williams 1981). Ajzen and Fishbein stress the importance of intention as a mediator of behaviour, noting that there is not necessarily a direct link between attitude and behaviour. Behaviour can be contextually affected – people can express a view and then

take an action that is inconsistent with that view, for example, based on situational factors/pressures. Ajzen and Fishbein make an interesting admission in this respect, because they say that TRA assumes the subject has volitional control, though they suggest this may not always be the case (see the Theory of Planned Behaviour in Section 3.1.5.2 , which addresses this limitation of TRA).

An interesting example of stated attitudes not resulting in expected behaviour can be found in LaPiere's study (1934 in Ajzen, Fishbein 1980), in which the researcher toured the United States with a Chinese couple, visiting 251 hotels and restaurants, only being refused by one. When LaPiere wrote to the manager of each establishment months later to ask whether they would accept a Chinese couple, over 90% of the 128 who replied said they would not. This illustrates the similar yet distinct concepts of an attitude toward a behaviour (accepting a Chinese couple at one's establishment) and toward an object (attitude toward Chinese people). LaPiere did not ask about attitudes towards the object, but rather the action.

It is important at this point to clarify an assumption that this thesis makes. While TRA considers attitude toward an action, not an object, this thesis considers both the attitude toward using a music download service (action), and the attitude toward such a service in general (object), based on the view that this would provide greater insight and understanding into the research questions. It does not seem sensible to divorce these two concepts for the sake of semantics, for the purposes of this thesis. This thesis does however distinguish between an intended action (using or not using the service) and the outcome of using the service (getting free music).

TRA includes the influence of subjective norms as the sum of various normative beliefs (the sum of what one's valued others think one should do). Ajzen and Fishbein clarify that it is the perception of what a valued other thinks the subject should do that is relevant, not whether taking the action would please or displease the valued other as an outcome (Ajzen, Fishbein 1975). While more recent literature on norms is discussed in subsequent sections of this literature review, in their thorough examination of empirical and theoretical literature on attitudes, Ajzen and Fishbein found in their development of TRA that subjective norms are not always relevant, do not always hold significant weight, and can vary by individual. Even in the same material context, with the same set of valued

others, two individuals may have entirely different subjective norms. Ajzen and Fishbein therefore suggest that since normative beliefs can be difficult to sum, using common sense estimation and judgement is a reasonable approach.

TRA is widely cited and appears to be a generally reliable model for predicting intention and behaviour in many fields. Its authors themselves have applied it in studies related to weight loss, family planning, voting, and changing the behaviour of alcoholics (Ajzen, Fishbein 1980), and more recently, others have applied the model in myriad areas such as online grocery shopping (Hansen et al. 2004), and the impact of cigarette pack warnings (Miller et al. 2011), to name a few. Indeed, numerous studies on music and software piracy have been inspired by or used derivations of TRA (Woolley 2010, Aleassa et al. 2011, Yoon 2011).

While some researchers have added their own contextually appropriate constructs to TRA, TRA's authors explicitly state that the model does not include "external variables", which they say may be relevant and influence beliefs and weightings, but may not have a relationship to attitude within the context of a general model, thus making them difficult to include (Ajzen, Fishbein 1980). Thus, studies that have used TRA merely as an influence (and added their own variables) have not been included in this section.

Rather than focus on the applications of TRA here, a discussion of applications will take place in the examination of the Technology Acceptance Model, which is heavily influenced by TRA, more directly relevant to the model developed for use in primary research, and explicitly accepts external variables as part of its design.

3.1.5.2 Theory of Planned Behaviour (TPB)

This model is not used for the research carried out for this thesis, but is mentioned for completeness because of its close association with (and evolution out of) TRA. Rather than giving a detailed treatment of TPB, this section explains why the model was deemed inappropriate for use.

The Theory of Planned Behaviour (Ajzen 1985, Ajzen 1991) is an extension of TRA. It builds on TRA by including a construct for the perceived control a person has over being able to perform a given behaviour. The premise of TPB is that "behavioural achievement depends jointly on motivation (intention) and ability (behavioural control)", and if a person is motivated to carry out a particular

behaviour (has intent), they can be successful at doing so if they have control over their ability to do so (1991:181-182).

The model is shown in Figure 10, with an explanation of its constructs in Table 5.
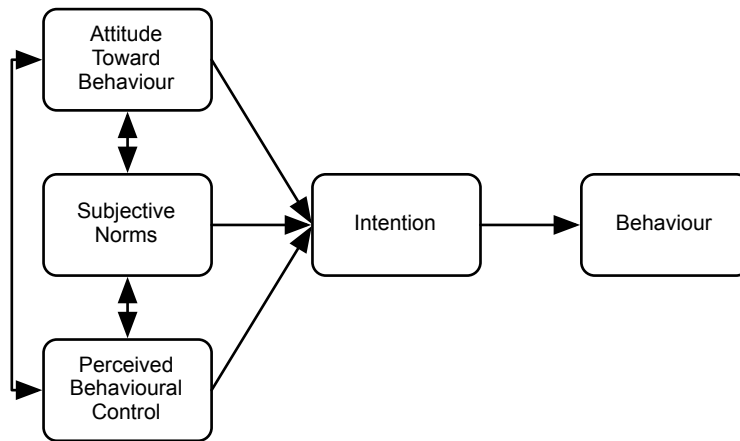
Figure 10: The Theory of Planned Behaviour (Ajzen 1991)

Construct	Definition
Attitude Toward Behaviour	"The degree to which performance of the behavior is positively or negatively valued"
Subjective Norms	A "person's perception of the social pressure put on him to perform or not perform the behavior in question"
Intention	"An indication of a person's readiness to perform a given behavior"
Behaviour	"The manifest, observable response in a given situation with respect to a given target"
Perceived Behavioural Control	"[A person's] perception of the ease or difficulty of performing the behavior of interest"

Table 5: Construct definition for the Theory of Planned Behaviour (Ajzen, Fishbein 1980, Ajzen 1991)

According to Ajzen, perceived behavioural control only tends to increase the predictive power of TPB in situations where the control element is relevant; in different contexts and situations, perceived control may be more important than intention, and vice versa. If a person has complete control over their ability to perform a behaviour, he says, "intentions alone should be sufficient to predict

behaviour", with the control construct only becoming relevant as the subject starts to lose it (1991:185). In this way, TPB almost seems to be a special case model, applicable (i.e. instead of TRA) only in cases where control is relevant.

Habit has been found to be strongly correlated to future illicit downloading behaviour (Fredricks, Dossett 1983, d'Astous et al. 2005, Chu, Lu 2007, Kunze, Mai 2007, Levin et al. 2007, Ho, Weinberg 2011, Yoon 2011, Clement et al. 2012), but is not a construct in TRA or TPB. This could be due to concerns expressed by Ajzen (1991:203), who cautions that one cannot assume that past behaviour is a "measure of habit", because past behaviour can be subject to "many other internal and external factors".

The influence of subjective norms was still unclear at the time of TPB's development, with Ajzen's analysis of the findings of 16 studies concluding that there were mixed results with no clear patterns, suggesting that "personal considerations tended to overshadow the influence of perceived social pressure" (Ajzen 1991:189). This echoes earlier findings about the varying influence of norms, expressed in the development of TRA (Ajzen, Fishbein 1975, Ajzen, Fishbein 1980) and the Technology Acceptance Model (Davis 1985).

Ajzen (1991) acknowledges the findings of other researchers, who suggest that the inclusion of personal norms and a sense of moral obligation can increase the predictive power of TPB for unethical behaviours, though he has not included or proposed construct relationships for these in his model. Related to moral obligation, d'Astous et al. (2005) suggest the inclusion of ethical predisposition as an additional construct in TPB, in their study related to illicit music downloading. Yoon (2011), who also uses TPB in a study on digital media piracy, mentions that a number of studies on digital piracy which make use of TRA and TPB have added moral/ethical obligations to their models. Clement et al. (2012) also use TPB in their consideration of whether the availability and use of a legitimate free music download service (either subsidized by a student's university, or ad-supported) can affect attitudes toward the use of illicit download services, including constructs for the effect of cost and benefit on attitudes.

Section 3.4.3 discusses more recent literature related to ethical considerations, and shows that it is not always clear what influence valued others have in one's

choice to make unethical decisions, because there are other factors such as perceived victims, that can influence ethical decision making.

Some downloaders may be concerned about the consequences of their actions (e.g. being fined for illicit downloading), but those concerns should not be confused with the ability to engage in a behaviour. While fear of negative consequences may encourage consumers to take or not take a particular action, it does not change the fact of whether or not they have the ability to do so.

Since this thesis is concerned with consumers who already download music, it is implicit that basic requirements such as access to a computer and an Internet connection are met. It is assumed that consumers are aware of their behavioural options related to downloading, and therefore under typical circumstances have control over their decision to download (e.g. legitimately or illicitly), or to not download.

Given that this research considers the use of a legitimate free service, there would seem to be no direct financial barrier affecting perceived behavioural control, and no legal penalty for using such a service. The only practical obstacle would appear to be access (e.g. availability in a particular region), which is addressed later in this thesis by removing behavioural outcomes from the proposed model (see Section 3.9). Indeed, Clement et al. (2012:16) found that perceived behavioural control had a "weak and inconsistent" influence in their study on free music downloading.

It seems, given the practical applications and assumptions outlined in this section, that the concept of perceived control is rather subjective, and rather open to interpretation (e.g. does fear affect perceived control even though the user still has the ability to carry out an action). In that case, the assumptions made in the preceding paragraphs (that the subject has control over his or her downloading behaviour) will be retained. As such, and in line with Ajzen's own guidance, perceived behavioural control is not considered to be relevant to this study, excluding this model from further consideration.

3.1.5.3 Technology Acceptance Model (TAM)

The Technology Acceptance Model, a well-cited model for studies on information systems and technology acceptance, was originally developed and tested by

Davis (1985) in his PhD thesis (see Figure 11). The model has since been subject to various iterations, which are discussed later in this section.
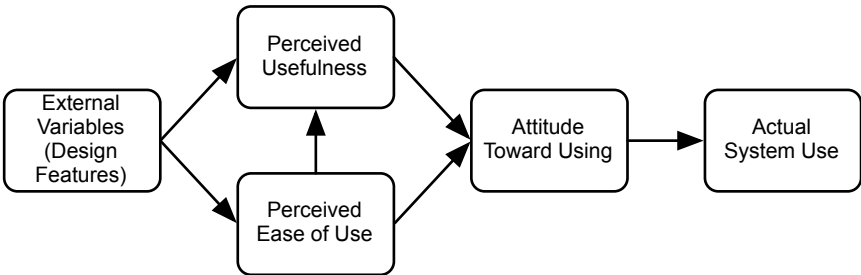
Figure 11: The (original) Technology Acceptance Model (Davis 1985)

An explanation of the model's constructs is given in Table 6.

Construct	Definition
Perceived Usefulness	"The degree to which a person believes that using a particular system would enhance his or her job performance"
Perceived Ease of Use	"The degree to which an individual believes that using a particular system would be free of physical and mental effort"
Attitude Toward Using	"The degree of evaluative affect that an individual associates with using the target system in his or her job"
Actual System Use	"An individual's actual direct usage of the given system in the context of his or her job"

Table 6: Construct definition for the (original) Technology Acceptance Model (Davis 1985)

TAM was designed in the context of end-user acceptance of information systems that are used to support work activities in an organisational setting, with prototype system evaluation taking place via user acceptance testing (UAT).

The initial aim of TAM, as described by Davis, was to enable better system design via a validated system evaluation methodology (Davis 1985:2). His original conceptual framework makes reference to users' motivation to use a system, and how the characteristics, features, and capabilities of a system affect such motivation.

TAM is couched in predictive behaviour theory terms, with Davis saying that in TAM, "a potential user's overall attitude toward using a given system is hypothesized to be a major determinant of whether or not he actually uses it" (Davis 1985:24). Accordingly, Davis chose to use well-established predictive behaviour models as a conceptual basis, adapting them to suit his new model's specific purpose and application. In particular, Davis drew on the work of Ajzen and Fishbein's TRA, referring to TAM in a later paper as "an adaptation of TRA" (Davis et al. 1989:983).

Many studies have shown TAM to be reliable and valid in various iterations, and a reliable predictor of information systems usage (Lee et al. 2003, Bagozzi 2007, Chuttur 2009).

Though the model was designed to evaluate information systems in organisational settings, it has been subject to various applications outside of this realm, and has been modified and used as a theoretical foundation in many other contexts (Lee et al. 2003). These include the examination of an acceptance model for the certification of non-profit organizations (Slatten 2010), online music purchase intentions in Taiwan (Chu, Lu 2007), website revisiting behaviour (Castañeda et al. 2007), initial trust related to online buyer behaviour (Chen, Barnes 2007), and music streaming (Delikan 2011), though the structure of Delikan's music streaming adaptation of TAM was found not to be applicable to this thesis.

The model has proven adept at accepting new context-specific constructs. In myriad adaptations and applications of TAM, researchers, such as the ones mentioned in the previous paragraph, have typically parsed out the perceived ease of use and perceived usefulness constructs and used them as a foundation for building their own models, adding various antecedents and other application-specific variables to test, including other influences on attitude and intention.

The evolution of TAM

While Figure 11 shows the original TAM model from 1985, the model most commonly referred to as TAM is a later model shown in Figure 12.
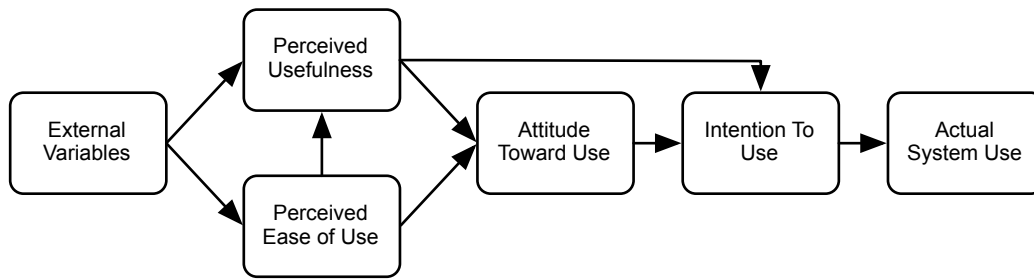
Figure 12: The Technology Acceptance Model (Davis et al. 1989)

An explanation of the model's constructs is given in Table 7.

Construct	Definition
Perceived Usefulness	"The degree to which a person believes that using a particular system would enhance his or her job performance"
Perceived Ease of Use	"The degree to which an individual believes that using a particular system would be free of physical and mental effort"
Attitude Toward Use	"The degree of evaluative affect that an individual associates with using the target system in his or her job"
Intention To Use	"An individual's positive or negative feelings (evaluative affect) about performing the target behavior"
Actual System Use	"An individual's actual direct usage of the given system in the context of his or her job"

Table 7: Construct definition for the Technology Acceptance Model (Davis 1985, Davis et al. 1989:320)

TAM has been subject to many updates and iterations over the last 25 years, including new versions such as TAM2 (Venkatesh, Davis 2000), and the Unified Theory of Acceptance and Use of Technology (Venkatesh et al. 2003).

With the exception of the Unified Theory of Acceptance and Use of Technology, the common element across the iterations is the presence of the perceived usefulness and perceived ease of use constructs.

Since 1985, there have been a number of significant changes to TAM:

- A construct for intention to use the system was added (Davis et al. 1989)

- The perceived usefulness construct was updated to show a direct influence on both attitude toward the system and intention to use the system (Davis et al. 1989)
- The construct for intention to use the system was removed, to show attitude having a direct influence on actual system use (Davis 1993)
- The perceived usefulness construct was updated to show a direct influence on both attitude toward the system and actual system use (Davis 1993)
- System design features/characteristics (external variables) were updated to also show a direct influence on attitude toward the system (Davis 1993)
- In TAM2, the construct for intention to use the system was reinstated, and the construct for attitude toward the system was removed, to show perceived usefulness and perceived ease of use having a direct influence on intention to use a system (Venkatesh, Davis 2000)

While all of these changes have been tested and were justified within the contexts they were tested, they do not all seem to be reliable changes. This is confirmed by the removal and then reinstatement of some aspects, such as adding and removing the construct for behavioural intent.

According to Ajzen (1991:181), intention is a key factor in both TRA and TPB because intentions "are assumed to capture the motivational factors that influence a behaviour" for example, "how hard people are willing to try". While "researchers have discovered that attitudes can influence behavior directly, as well as indirectly through intentions" (e.g. Bagozzi et al. 1989:36, Davis 1993), there is also research, some of it conducted by the same authors, showing that intentions are still relevant for inclusion (e.g. Fredricks, Dossett 1983, Venkatesh, Davis 2000). Given that there does not yet seem to be a conclusion either way, it would seem prudent to include intention in any model for the time being.

There are a number of themes raised by researchers that suggest context is vital in dictating how TAM should be applied. For example, Chuttur (2009) notes that the mandatory versus voluntary usage context of a system is important to consider – i.e. when a worker must use a specific system to complete a task, versus where the user has a choice. Davis (1985), mentioning that TAM relies on self-reporting in lab-based environments, outlined areas for future research related to subjective versus objective measurements of ease of use and

usefulness (i.e. how are they correlated, types of measurements, and which form is correct in what situation or for a given type of system).

Subjectivity and environmental factors are just two aspects that can affect the differential between intentions and actual behaviour. Ajzen and Fishbein (1975) mention the passage of time as a factor that can affect this, as well as the ability to actually act. It is suggested that the more subjective an attitude is, the less reliable TRA or TAM may be in predicting actual behaviour – one could be surer of the consistency of an attitude than about intent, and even less sure about how that intent might translate into actual behaviour. This was indeed found to be true for the research carried out for this thesis, which affected the evolution of the model in primary research.

The points stated here raise the reasonable question of whether there is a 'correct' version of TAM for use. There was no clear evidence found in the literature to suggest that there is one correct version, and this would seem to be a reasonable finding, considering that many studies simply parse perceived usefulness and perceived ease of use, with TAM almost serving as an inspiration for new context-specific models, rather than applying a TAM model intact to a contextual setting.

Criticisms of TAM

According to Davis et al., "The goal of TAM is to provide an explanation of the determinants of computer acceptance that is general, capable of explaining user behavior across a broad range of end-user computing technologies and user populations, while at the same time being both parsimonious and theoretically justified […] A key purpose of TAM […] is to provide a basis for tracing the impact of external factors on internal beliefs, attitudes, and intentions" (Davis et al. 1989:985).

TAM and a number of its various iterations appear to be well-used and well-referenced, and the model overall seems to be rather useful for explaining attitudes towards information systems, achieving its authors aims to some extent. Researchers have noted that it is relatively flexible, easy to use, and "has consistently outperformed the TRA and TPB in terms of explained variance across many studies" (Mathieson 1991, Taylor, Todd 1995, Bagozzi 2007:245).

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However, there are a number of researchers who feel that the model is too simple, too general, and could benefit from additional context in its various applications to provide more in-depth explanations, particularly related to perceived usefulness and ease of use, and what drives or influences these perceptions (Mathieson 1991, Bagozzi 2007, Chuttur 2009, Soliman, Lapointe 2009). For example, it has been suggested that while TAM is effective, TRA and TPB provide more useful contextual detail because they are designed to examine beliefs in relation to a specific system (what parts are easy to use or not easy to use and why), rather than whether the system is simply easy to use. The same can be said for perceived usefulness. Davis (1993) suggests the need for additional constructs that relate more specifically to the context of the particular system under test and its usage environment, also adding that his research found that perceived usefulness and perceived ease of use may not be the only beliefs influencing attitudes.

Soliman and Lapointe (2009:1) say that technology acceptance "has almost always been conceptualized from a performance-related perspective", and that softer, more human concepts such as motivational theory could be used. This is an interesting point they raise, given that motivation was an important part of Davis' conceptual framework as he developed the original TAM.

Chuttur (2009) mentions that TAM2 (Venkatesh, Davis 2000) attempted to address some researchers' concerns by adding additional constructs such as norms, experience, "voluntariness" (of system use), output quality, image, job relevance, and result demonstrability. The Unified Theory of Acceptance and Use of Technology (Venkatesh et al. 2003) is an apparently further evolution of TAM that attempts to add even more detail, but contains little semblance to TAM, as it omits the key constructs of perceived usefulness and ease of use. In speaking of the need for TAM to provide deeper insights, Bagozzi cautions against the development of models that are so large that they end up being "fragmented with little coherent integration" (Bagozzi 2007:245).

TAM relies on self-reporting, even in lab-based settings. That the items used for self-reporting in TAM studies do indeed seem to be rather general in nature, and do not seem to explore issues in depth, is interesting considering that TAM by design allows for the inclusion of and testing of the influence of external

variables, so should presumably allow researchers to delve into more detail as part of the structure of the models they are testing.

Lee et al. (2003), in their thorough analysis of the progression of TAM in the two decades since its inception, suggest that many authors, in their own adaptations of TAM for their own research, are inherently addressing concerns about the model being too general, by adding more constructs that are relevant to their topics. Indeed, this thesis attempts to do the same.

Norms and TAM

While TAM is heavily influenced by TRA, the model does not include the influence of subjective norms. Davis (1985) explains this decision by saying while there was evidence of norms being important in other models such as TRA, the effect could not be measured (more objectively) in a lab-based setting. Indeed, Ajzen and Fishbein remark that lab-based studies can change the context of observation of attitudes, limiting the realism that can be represented, for example due to practical reasons such as time or resources (Ajzen, Fishbein 1980). However, as previously mentioned, subjective norms are self-reported, so there is perhaps room for debate on the extent to which a laboratory limits the ability to measure subjective norms.

The preceding sections on TRA and TPB have already mentioned that over a period of decades, research does not seem to have reached a conclusive agreement about the consistent and general importance of norms in predictive behavioural models. TAM2 includes the influence of subjective norms on behavioural intent (as well as on image and intention), however it was found that they were only relevant in mandatory use environments, and not voluntary ones (Venkatesh, Davis 2000). In general, studies using aspects of TAM have also found that the importance of norms varies by context and environment.

When Davis et al. tested TAM versus TRA (Davis et al. 1989), they found that subjective norms had little relation to behavioural intent, suggesting that one reason for this could be that the system under test was individual and personal (a word processor). It is interesting to note that subjective norms present in an organisational context might be subject to different pressures and dynamics than subjective norms in a personal/hedonic context (i.e. for the same piece of technology), though that is well out of the scope of this thesis.

In some contexts, and for some people, subjective norms appear to hold weight and importance, and in other contexts and for other people, they are in practice irrelevant to behavioural intent. Davis refers to research by Warshaw (1980 in Davis 1985:227) who points out that what is thought to be the effect of the influence of subjective norms may not actually be accurate. He says that a person's beliefs may be aligned with their valued others' beliefs anyway, so a person might be acting because they want to, based on their own beliefs, not because of what anyone else thinks. Further discussion of norms can be found in Sections 3.4.5 and 3.8.

Application of TAM in online environments

TAM has been successfully applied in the online consumer environment, in studies including online banking (Pikkarainen et al. 2004), website revisiting behaviour (Castañeda et al. 2007), and initial trust related to online buyer behaviour (Chen, Barnes 2007).

The specific mechanics of an online system might differ from a physical system (e.g. an online service versus a mobile phone or video camera), however, within the context of TAM, both could be considered systems with an interface, with a utilitarian function that serves as a means to an end (e.g. getting information, purchasing an item, making a call, making a video recording). For example, TAM has been used for word processors and email, which use the same interface as that for online shopping (a computer with a screen, graphical interface, and keyboard).

Much of the research on TAM specifically referring to online media services appears to be early-stage, disseminated primarily through conferences (see Amoroso, Guo 2006, Hiramatsu et al. 2009, Delikan 2011, Sin et al. 2012). While the concepts are interesting enough to warrant inclusion here, the research findings appear to be of questionable validity/reliability, as there is limited justification of the models and methodologies proposed, and limited discussion of the results.

Sin et al. (2012) investigated Malaysian youths' intentions to make purchases via social media websites, using a model consisting of perceived usefulness, perceived ease of use, subjective norms, and purchase intention. Their conference paper noted that they found subjective norms to have a significant

influence on purchase intention, and they suggest that this is likely due to the social nature of the website being used. This is not surprising, given that the opinions of one's valued others within the context of an online social network may carry more weight than in other online environments. Their research consisted of only a survey, so their discussion was limited to further hypotheses to explain their findings, rather than a contextualised discussion based on any qualitative findings.

Hiramatsu et al. (2009) conducted research related to the use of online video services in Japan, adding social influence, comfortable environment, advertising interference, service fees, and immersion in the service as external variables to TAM for their research. While on the face of it, their research appears to be relevant to this thesis, on inspection, their conference paper has poorly defined constructs, the questions they outline as having used for their survey do not appear to be relevant to their proposed model or research aims, and a discussion of their findings is absent. They also include ad interference and service fees as a single construct, and they include a measure for perceived behavioural control in their survey, which is absent from the proposed extended version of TAM they test. Hiramatsu et al. (2009) did not find a link between "social influence" and intention, and found that advertising interference and usage fees were not important barriers to service usage, though the limitations of their paper mean their findings should be taken under advisement. Delikan (2011) applies Hiramatsu et al.'s model to the music streaming service Spotify, though, for the same reasons mentioned above, the paper's findings should also be taken under advisement (see Section 7.5).

Amoroso and Guo (2006) conducted a study using a proposed extension of TAM that omits the attitude construct but includes external variables that are mostly demographic, with the exception of a construct added for previous experience. They found that TAM can be used to explain intentions to obtain music via P2P services (rather than purchasing CDs), but that their proposed demographic variables (gender, age, Internet connection speed, education) were not relevant. Pikkarainen (2004) also found that Internet connection speed was not relevant, suggesting that could be because "reliable" connections are increasingly common. Amoroso and Guo suggest that ethics are important to consider for P2P usage studies given that legal and moral pressures could affect the strength of subjective norms. They also found that perceived ease of use was not

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particularly important, especially for experienced users of P2P services. This is consistent with a other studies which find that perceived usefulness is typically more important than perceived ease of use (e.g. Chu, Lu 2007), however, Chiu and Chou (2011) note that ease of use can still be an important part of the usage experience for P2P downloaders.

It is worth investigating in primary research whether by virtue of a music download service being free, ease of use is less important, even for less experienced users.

A more rigorous study influenced by TAM is Chu and Lu's research into online music purchase intentions in Taiwan (Chu, Lu 2007). Their research, which is referenced in later sections of this literature review, includes playfulness, value, and price in their extension of the model, focusing on value benefits in hedonic IT usage. They found TAM to be adept at accepting their constructs in the context of a proposed "belief-value-intention theory", and suggest that "utilitarian-oriented IT acceptance behaviours" would suit the more traditional TRA-influenced approach of "belief-attitude-intention-behaviour" (Chu, Lu 2007:51).

While TAM is a well-referenced model (with citations numbering in the thousands), it seems like a model that has been through so many variations and purpose-specific applications that researchers may need to reference the original work for an understanding of the model's original conceptual application. It may well be that there also needs to be clarity on what aspects of TAM are being referenced or used, given that many studies (mentioned previously) reference the use of TAM, but are essentially only using the concepts of perceived usefulness and/or ease of use. Additionally, the evolving concept of an information system is worthy of consideration – technology that represented an 'information system' for particular tasks in the 1980s or even 10 years ago may be vastly different than the technology used today to accomplish the same tasks – this includes not only system interfaces, but the usage environment as well, of which there appears to be little discussion.

It is also apparent from the literature that application context is important. TAM (and its iterations) could benefit from a test of reliability by applying each on narrow control sets, i.e. choosing a 'control' context based on theoretical homogeneity, and testing the model across different technologies in that area, to

see if it is reliable in particular settings and contexts. For example, it would be useful to know whether situations that require ethical decisions consistently require a construct for subjective norms, which might not otherwise be part of the basic TAM, or as another example, whether one version of TAM holds true for the same technology in different use contexts (e.g. mobile phones for work versus personal use). This could help to make it clearer which version of TAM is most applicable for a given scenario.

3.1.5.4 Decomposed Theory of Planned Behaviour (DTPB)

For interest, readers should note that there is precedent for a hybrid between TPB and TAM, referred to as the Decomposed Theory of Planned Behaviour (Taylor, Todd 1995), shown in Figure 13. According to Taylor and Todd, the model addresses Mathieson's work that compares (but does not combine) TPB and TAM (Mathieson 1991), by integrating the two models.
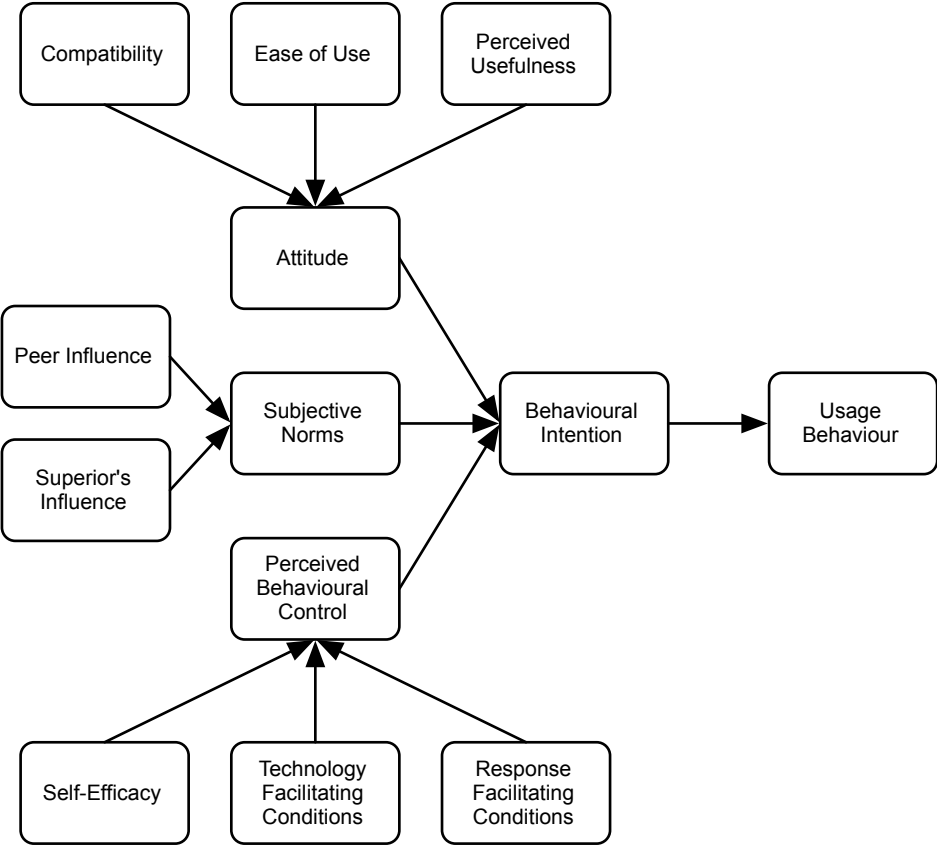
Figure 13: The Decomposed Theory of Planned Behaviour (Taylor, Todd 1995)

The DTPB model builds on the common TPB and TAM elements of attitude, intention and usage behaviour, includes the TAM constructs of perceived usefulness and ease of use, and includes the TPB constructs for perceived behavioural control and subjective norms, in addition to further antecedents for attitude, subjective norms, and perceived behavioural control. Taylor and Todd found that this hybrid model can be more effective than either TPB or TAM alone in providing a richer explanation of usage intention. Given that perceived behavioural control has been deemed an irrelevant factor for this thesis, the DTPB model is not considered further in this research. However, by removing the construct for perceived behavioural control, the model essentially reduces to a combination of TRA and TAM, with a few additional antecedents.

Taylor and Todd tested TAM, TPB, and DTPB on the usage of a computer resource centre by university students, and found that the significance of ease of use and attitude varied between the models, that attitude did not have a direct effect on behaviour, and that subjective norms were significantly related to intention. It seems, however, that their conclusions have not resulted in any structural changes to TAM.

Arguably, as with norms, the variations they found could be related to the context in which the models were applied, e.g. the perception that making use of the resource centre will improve marks and therefore standing amongst other students, or if a student chooses to log-in to use the same computing resources from home if that is perceived as easier than at school and vice versa (constructs related to these issues are not present across all models). Indeed, Taylor and Todd mention authority (e.g. boss, teacher) and teamwork as possible factors affecting whether norms are relevant, and suggest that subjective norms could be more important in the early stages of system use (e.g. relying on the opinion of people you value when confronted with an unfamiliar system).

3.1.6 Decision to use TAM (with norms) as a foundation

Given TAM's apparent flexibility and broad application across a variety of subjects in literature, its relevance to themes and concepts discussed in this literature review, and the explicit permission (by design) to add contextually appropriate variables as antecedents to perceived usefulness and perceived ease of use, this would seem to be a very appropriate model for consideration as a basis for a framework.

The model, as previously discussed, incorporates predictive behavioural concepts, and was developed based on key, well-referenced models in that respect. While it was designed for physical systems to be tested by users in organisational environments, other authors, as previously mentioned, have shown that the model can be applied to more modern information systems, such as online services, and in contexts outside work environments.

For the purpose of primary research in this thesis, elements of TAM are applied in the context of a voluntary, self-oriented, online service utility. For example, users can choose to use a free legitimate, ad-supported music download service to procure music, but they are also free to choose from a variety of other music download services to procure the same content (e.g. illicit, legitimate, paid, unpaid).

While subjective norms are not part of the original TAM (only TAM2), they have been retained for the initial model proposed in this thesis, because there is no conclusive evidence suggesting they should be excluded. They also warrant inclusion given that this thesis wishes to give some consideration to the potential influence ethical views may have on attitudes towards particular types of music download services.

While TAM was found to be the most suitable starting point for developing a new model in this thesis, there are some limitations that should be noted, in terms of how the model is applied in primary research.

Firstly, there is no prototype system for the primary research sample to test, and no lab setting, so analogies and references to existing systems are made for context where necessary. That TAM uses self-reporting (i.e. the physical system used does not collect information on its usefulness) helps to mitigate this. There is also precedent in the literature for this approach to online services (e.g. Koufaris 2002, Chu, Lu 2007, Clement et al. 2012), with Koufaris saying that "the significance of perceived usefulness shows that the Technology Acceptance Model can be successfully applied, even when the behavior in question is not one of pure system usage".

Secondly, while TAM provides an explicit model for intention to use and actual usage, the subjective nature of attitudes for the topic at hand, as well as an inability to measure actual system usage, led to the revision of the proposed

model after the first stage of primary research (to omit these two components). Clement et al. (2012), in their investigation (using TPB) into attitudes and behaviour of Ruckus users, were able to secure actual behavioural data for a portion of their sample (with the sample's permission). However, they noted that in their consideration of behaviour and intention to use legitimate and illicit services, they were not able to obtain similar data for illicit services with which to make comparisons, and thus had to rely on self-reporting for part of their study. Arguably, and in light of the criticisms levelled against TAM, this thesis keeps the more important part of the model because it focuses on an in-depth understanding of the antecedents to perceived usefulness, perceived ease of use, and attitudes. This thesis inherently takes the need for further elaboration into consideration, providing rich contextual discussion to support the conceptualization of perceived usefulness and ease of use throughout the primary research stages.

An explanation of how TAM will be applied in the construction of a model of the characteristics that influence attitudes toward a free legitimate, online music download service is given in Section 3.7 (see Figure 19 and Table 14).

A conceptual foundation for the remainder of this literature review has now been established. The predictive behavioural model as a framework has been introduced, with TAM being identified as most suitable for consideration, with the addition of a construct for norms influencing intention. Subsequent sections build on the theory introduced thus far, and consider what variables and constructs might be relevant in a context-specific application of TAM for music download services. This is achieved by examining characteristics of online services (particularly as they relate to music downloading), and the nature of online advertising, in order to determine the characteristics of advertising that can affect attitudes and perceptions of a service. Illicit downloading is considered, in particular whether ethics and perceived risk might influence intention to use a legitimate free service, in order to determine whether there are any aspects from illicit services that could be transmuted to a model related to legitimate free download services.

3.2   Online service characteristics

Given that the topic being researched for this thesis does not appear to have been investigated before, it is necessary to explore what is contextually relevant

to the model being developed in this thesis. To achieve this, this section first looks at frameworks for online service quality, in order to understand what aspects/categories of online services consumers evaluate. These aspects are then related to online music download services.

3.2.1 A framework for the perception of quality of an online service

It is important to understand how consumers evaluate online service quality, while also being mindful of the fact that different people may have different motivations for using a service, and perceive the same stimuli in different ways. While there is seemingly little literature addressing service characteristics as they relate to ad-supported music services, as explained in the preceding section, frameworks for online service quality in general will be used as a starting point to provide an academic underpinning for insight into key characteristics that are likely to affect perceptions of such a service. These frameworks will be considered from the vantage point of users of a service, as opposed to people simply seeking information on a service.

Extending the discussion of value, quality, and satisfaction in Section 3.1.3 , Liljander and Strandvik (1993:7) describe service quality as an "attitude concept" based on an "overall evaluation of the service". The perceived quality of an online service can play an important part in attracting users to a service (Cai, Jun 2003) and a user's evaluation of his experience and satisfaction with a service (Yang et al. 2004), therefore it is important to meet and maintain expectations of quality to attract and retain customers. The perception of a service's quality can affect loyalty and commitment to a site (Park, Kim 2003), and is a key determinant of a (transactional) website's success (Cai, Jun 2003). While service quality is "an abstract and elusive construct" similar to attitude (Parasuraman et al. 1988), service value and service quality are nonetheless distinct concepts (Bolton, Drew 1991). Yang et al. (2004) note that it is difficult for companies to perform well across all areas of service quality, and Liljander and Strandvik (1993:7) note that because service quality is an overall evaluation, "It is thus possible to perceive service quality as good even though one specific transaction may have been unsatisfactory".

It is important to note that this thesis is not about quality or value specifically, so it does not intend to formally develop or test service quality frameworks. Rather, the frameworks that are relevant to online services will be used as a guide in

order to assist with the discovery of relevant external variables related to music downloading, to be included in the initial model that is proposed in Section 3.8.

SERVQUAL (Parasuraman et al. 1988) is a typical starting point for discussions on service quality. Originally developed for offline, face-to-face interactions, the instrument has been referenced many thousands of times since its formal introduction in 1988. It is not a behavioural model, but a multi-item scale used to measure "the degree and direction of discrepancy between consumers' perceptions and expectations" (Parasuraman et al. 1988:17).

The instrument consists of five dimensions:

- Tangibles ("physical facilities, equipment, and appearance of personnel")

- Reliability ("ability to perform the promised service dependably and accurately")

- Responsiveness ("willingness to help customers and provide prompt service")

- Assurance ("knowledge and courtesy of employees and their ability to inspire trust and confidence")

- Empathy ("caring, individualized attention the firm provides its customers")

The Assurance and Empathy dimensions encompass communication, credibility, security, competence, courtesy, understanding/knowing customers, and access.

SERVQUAL has been found to be industry, service type, and context dependent, both offline and online (for example, see Yang, Jun 2002, Cai, Jun 2003, Tate, Evermann 2010). Researchers who have successfully modified the instrument to make it fit for their purposes typically add, remove, or reword its dimensions (e.g. Bolton, Drew 1991, Li et al. 2002, Han, Baek 2004). SERVQUAL's authors themselves suggest that is a reasonable course of action (Parasuraman et al. 1988, 1994), though there are others (e.g. Tate, Evermann 2010) who argue that it was fundamentally not designed for information systems, online environments, or self-service technologies, because it was not designed to account for interactions with an information system (e.g. between customers and a website).

While it could be argued that any of SERVQUAL's dimensions could be reworded for the online environment, on inspection, a key criticism of the instrument is that its dimensions are too generic for translation. Translating its dimensions for the online environment runs the risk of becoming a purely subjective exercise, with different researchers rewriting dimensions based on their own frames of reference, resulting in fragmented, disjointed, poorly tested iterations, and raising a fundamental issue of the instrument's validity in the online environment. For example, reliability can be conceptualized differently by different people – it could include keeping a promise, technical performance of the service's equipment, or performance of the consumer's equipment, yet any of these aspects could also related to responsiveness or assurance dimensions.

In the introduction of SERVQUAL (Parasuraman et al. 1988), important limitations were evident, though not always presented as such. For example, the instrument's authors note that SERVQUAL was developed based on empirical evidence, and only kept items that were relevant to the services they studied. In theory, this suggests that SERVQUAL might have only been valid for banking, credit card services, appliance repair/maintenance, long distance telephone services, and securities brokerage services because the authors imply that if different services or industries were added to their study, the results might be different. They refer to their instrument as valid and imply that it is generalizable in retail environments, but say that its dimensions can be "reworded and/or augmented" so they can fit the context they are being applied to (p.28). This indicates that it is not generalizable as-is and potentially not valid if applied to other services as-is, because the scale items may not be representative of the construct's new field.

Tate and Evermann (2010) argue that it is inappropriate to apply SERVQUAL to online self-service technology because its disharmonious applications provide a poor theoretical foundation. Independent of construct translation, they mention that the instrument's original assumptions were important, and that SERVQUAL was "based on assumptions that are not applicable in an online self-service environment" (Tate, Evermann 2010:64). They hold fast in their assertion that when too many modifications and adaptations need to be made to make a model or instrument fit for use, it is probably time to use a new one, saying that a construct adapted to have "a different name, in a different context, and with different indicators" eventually loses its original meaning and conceptualization,

bringing the merit of such an exercise into question. As an example, they identify perceived usefulness, perceived ease of use, and trust as relevant considerations in a quality model for information systems, as these are factors that have been proven relevant for studies on information systems (e.g. in TAM).

Tate and Evermann suggest that a better approach to measuring service quality for information systems would be to use models that have already been proven in the contexts being studied, for example, in the way that this thesis uses TRA/TAM informed by other contextually relevant areas to measure attitudes towards a specific type of music download service. At the end of Section 3.1.5.3 , it was suggested that given TAM's own evolution and contextual dependencies, some models should be kept as guides but otherwise require more formal updating for use in specific contexts.

Despite the criticisms of SERVQUAL outlined here, it should be noted that SERVQUAL is an instrument, not a model. In this thesis, service quality dimensions are used only as a guide for exploration in primary research. Indeed, as discussed later in this section, many of the researchers who have looked at service quality online have studied the online versions of SERVQUAL's original areas of interest (e.g. banking).

Zeithaml et al. (2002) mention that there is limited systematic exploration of what constitutes service quality online, and Tate and Evermann (2010) suggest there is not much consensus on constructs for online service quality. However, the discussion that follows will show that there are indeed common elements of service quality that can be identified across different studies on online services. Accordingly, this section considers research that specifically relates to areas for measuring and categorizing online service quality.

Yang et al.'s six factor Quality Model for an online service (Yang et al. 2004) appeared to have the most comprehensive and objective approach to qualifying characteristics of the models reviewed in the literature. They consider offline service quality models (e.g. SERVQUAL), and discuss how they are not particularly appropriate for online use given that they do not account for key attributes that apply to online services. They conducted an extensive literature review on consumer perceptions of service quality and existing frameworks, and conducted their own research exercise involving a detailed methodology and

tests for validity and reliability, over and above what other academic studies presented, which is why particular attention is paid to their findings in this thesis. Though they focused on the online banking sector in their primary research, they reference literature that includes other sectors such as online retailing and travel. Yang et al.'s framework is based on the following factors:

- Reliability of the service

- Responsiveness of the service

- Competence of the service

- Ease of use

- Security

- Product Portfolio

Though Yang et al.'s review appears to be relatively thorough and comprehensive, a number of authors have proposed various factors that influence perceptions of online service quality (see Table 8 for examples). The literature reviewed in this area touches mainly on online shopping and banking, however, common themes across different service sectors are evident (e.g. Constantinides 2004), suggesting that most factors can be applied to any online service, regardless of sector. Some of the framework reviews are more comprehensive than others, so rather than summarize the merits and drawbacks of each (which has already been done in great detail, for example, by Yang et al. 2004), this section will summarize the key common characteristics across the frameworks.

Researcher(s)	Identified Dimensions
Cox, Dale (2001)	Accessibility, credibility, appearance
Madu, Madu (2001)	Performance, features, structure, aesthetics, reliability, storage capacity, serviceability, security and system integrity, trust, responsiveness, product/service differentiation and customization, web store policies, reputation, assurance, empathy
Yu, Donthu (2001)	Ease of use, aesthetic design, processing speed, security
Wolfinbarger, Gilly (2002)	Web site design, reliability, privacy/security, customer service
Yang, Jun (2002)	Reliability, access, ease of use, personalization, security, credibility, correctness of order fulfillment, prompt delivery, accurate billing, reply to customers within promised timeframe
Zeithaml et al. (2002)	Access, ease of navigation, efficiency, flexibility, reliability, personalization, security/privacy, responsiveness, assurance/ trust, site aesthetics, price knowledge
Cai, Jun (2003)	Web site design/content, trustworthiness, prompt/reliable service, communication
Park, Kim (2003)	Information quality, user interface quality, security
Constantinides (2004)	Usability, interactivity, trust, convenience, aesthetics, navigation, search, speed, order/payment process, communication
Yang et al. (2004)	Reliability, responsiveness, competence, ease of use, security, product portfolio
Chen, Barnes (2007)	Perceived usefulness, security, privacy, good reputation, willingness to customise

Table 8: Various factors that can affect perceptions of service quality

It should be noted that Table 8 lists dimensions, and that within those dimensions can be more specific features or what might be considered sub-dimensions. For example, Madu and Madu (2001) found that search capability, ease of use, ease of navigation, speed of download, trust, and customer service contribute to

service quality, within some of the dimensions they identified. Cox and Dale (2001) found security, integrity, trustworthiness, and page loading/downloading speed to be relevant in the same way.

From a review of the literature throughout this chapter, it seems that broadly speaking, there are eight common factors that affect a person's perception of the quality of an online service:

- Aesthetically pleasing

- Easy to use

- Offers a degree of convenience to the user versus offline alternatives

- Wide offering of products and features personalized to the user

- Technically reliable and efficient

- Customer service provides prompt responses and the user perceives a good relationship with the service provider

- Trustworthy and reputable providing clear terms of use, accurate information, and security of information

- Delivers on promises

The factors that are put forward in this section are not being proposed as a robust, deeply-analyzed framework for this thesis, but rather as a guide to facilitate the linking of perceived service quality with aspects of a free, ad-supported music download service so that there is a contextual direction for research into attitudes during primary research.

As previously discussed, perceived quality is related to satisfaction. Yang et al. found that it is difficult for companies to achieve excellence across all six of their proposed areas, because this can be difficult and resource intensive. They stress the importance of a coordinated effort both within a company and with its partners in order to achieve as high a standard as possible. Constantinides also comments on the experiential complexity of the online environment, and the challenges faced by companies in delivering positive online experiences to consumers because there is still a limited understanding of how quality factors

relate to each other, and their individual importance (Constantinides 2004). It seems that, as with perceived value, the antecedents of perceived quality can vary.

While Yang et al.'s framework (2004) appears to be a comprehensive distillation of many researchers' findings, the eight common factors for online service quality that were distilled from myriad other researchers' findings seem more descriptive, while still being able to reside within Yang et al.'s framework. It is proposed, therefore, that these eight common factors be used as the initial guide for linking service quality to key service characteristics of music download services.

3.2.2 Characteristics that consumers value in music download services

The eight quality factors identified in the previous section will be discussed here as they relate to music download services, in order to support the construction of a context-specific conceptual model in this thesis. The discussion in this section is framed based on a non-monetary, functional, and experiential point of view, to provide more specific insight into features and characteristics that consumers prefer and or/value. These factors are also considered to relate to perceived value, as per relationships discussed in Section 3.1.3 .

While this research is specifically about legitimate free, ad-supported music download services, the academic literature available relates almost exclusively to legitimate paid services and illicit free services. Accordingly, where appropriate, literature on these topics will be used to provide context for the model that will be developed.

Applying a framework for perceived service quality to the topic of music downloading highlights some conceptual overlaps – for example, ease of use and convenience, and aesthetics and trust. This is due to interpretation in the mapping, and is considered to be an advantage rather than a disadvantage, because this is not being used for the development of a service quality model, so simply highlights issues for consideration in primary research.

In a review of the literature considering what drives people to consume music online without paying, it was shown that consumers' main reasons for illicit music downloading include being able to find specific, rare, or unreleased tracks,

access a wide variety of music, preview music before buying, save money, avoid files that are in proprietary formats or have DRM, and be able to easily find desired music and information (Molteni, Ordanini 2002, Giesler, Pohlmann 2003, Walsh et al. 2003, Helberger, et al. 2004, Amberg, Schröder 2007, Chu, Lu 2007, Plouffe 2008, Music Experience and Behaviour in Young People 2008, Chiu, Chou 2011, Moores, Esichaikul 2011). These areas will be considered within the service quality framework.

Some literature has also discussed the concept of online communities being valuable to service users (Kwok et al. 2001, Giesler, Pohlmann 2003, Plouffe 2008). Although this was not a featured aspect in the service quality literature, it is an aspect that may hold value, so is included for investigation in primary research.

3.2.2.1 Aesthetics

Consumers tend to prefer services that have an appealing look and feel, and good aesthetics lend additional credibility to a service. Website designers, user interface designers, and advertisers need to strike a balance between making a website or service look interesting and entertaining without making it too complex or confusing, because users can be turned-off if the content is confusing or difficult to understand, interpret, or interact with (Herbig, Kramer 1994, Korgaonkar, Wolin 2002). This also applies to the quality of the advertising that is shown.

3.2.2.2 Ease of use

Chu and Lu (2007) found that for youth (under 30s) in Taiwan, ease of use was considered an important cost factor, but that it was not a driver of value perception. They suggested that this was due to their sample being very familiar with IT and online technology, and that those who are more familiar with IT usage are less concerned about ease of use when judging satisfaction. However, they also said that the level of available technology in a country and a person's comfort with online technology can influence perceptions of cost and quality. They suggest that, for example, youth in an environment where online technology is advanced and prevalent have different attitudes and perceptions about online services and technology compared with youth in an environment lacking those characteristics. This suggests that ease of use may hold greater value for

consumers who are not heavy users of online technology, and is in agreement with research by Amoroso and Guo (2006) and Castañeda et al. (2007).

An online service's graphical interface is the only thing that users have a means of interacting with. Where, in a bricks and mortar store, consumers can walk around the store, interact with sales people, and touch and feel merchandise (incorporating many points of interaction, from lighting to texture to interpersonal relations), on an online store, the consumer can only interact with their computer screen (via a mouse/keyboard).

Though the issue of ease of use seems to be less important for consumers who are quite technically adept (Amoroso, Guo 2006, Chu, Lu 2007), the ability to easily navigate a site and efficiently search for information and conduct a transaction are important (Constantinides 2004, Amberg, Schröder 2007, Chu, Lu 2007, Kunze, Mai 2007).

The ability to efficiently and effectively search for information can be an important factor in the utility, enjoyment, and value of an online service, and therefore the ultimate success of a website.

The quality of a site's user interface (e.g. layout, navigation) affects user commitment to the site (Park, Kim 2003); therefore a service should be intuitive and easy to use, presenting users with information and tools adequate for their needs (Kulviwat et al. 2004).

Constantinides (2004) found that online consumers expect services to be easy to use. Herbig and Kramer (1994) say that products and services should be designed for usability, not just technical functionality, so that they do not drive away consumers who get confused or find the service too difficult to use. This is an oft-heard comment about modern consumer technology. According to Herbig and Kramer (1994:48), "simplicity of use" is important, and "only one-third of today's consumers believe more product features are synonymous with better quality".

Accessibility and interoperability are aspects to consider in ease of use (Cai, Jun 2003, Moss in Kerényi 2005). Having to use specific hardware or software to consume content from an online store can be an issue, because it can reduce the flexibility and control that a user perceives as having, can add additional steps to

the process of obtaining or playing content, and thereby introduce perceived delays, which may negatively influence views toward the service (e.g. Helberger et al. 2004, Ryan, Valverde 2005). While these might be considered aspects of ease of use, they could also be considered to be relevant to perceived usefulness, as TAM accounts for.

The ability to easily find information online and customize a search experience increases a person's perception and enjoyment of an online service, but consumers who browse with no specific purpose are less concerned about ease of searching (Koufaris 2002, Constantinides 2004, Kulviwat et al. 2004).

Primary research carried out for this thesis explores what consumers consider 'easy to use' to mean for a music download service, and whether, in the case of a legitimate free service, consumers are willing to make concessions on ease of use for other perceived benefits, such as free music. It will also be able to provide insight into whether aspects of ease of use are seen as more, less, or equally important to occasional versus heavy downloaders. Primary research will also investigate the role that search capability plays in ease of use.

3.2.2.3 Convenience

While the service quality framework outlined in Section 3.1.5.2 refers to convenience of an online service as compared with offline alternatives, in the case of this research, the alternatives are all online. The convenience considered here will be between legitimate and illicit services, in order to provide insight into why consumers might prefer one type over the other.

Consumers turn to the online environment to consume music because they find it easy and convenient to do so (Molteni, Ordanini 2002). They value the ability to easily connect with the music they have an interest in, as well as information related to that music (Molteni, Ordanini 2002, Walsh et al. 2003, Amberg, Schröder 2007). Speed is also an important aspect of convenience (e.g. Constantinides 2004).

Though (free) streaming music services have proven to be popular with consumers, particularly in the USA and UK, consumers value having ownership of their music, and the ability to use the digital music files they obtain in whatever way they wish (Helberger, et al. 2004, Music Experience and Behaviour in Young

People 2008, BPI 2011). A study by the University of Hertfordshire and British Music Rights (Music Experience and Behaviour in Young People 2008:37) found that two-thirds of respondents would not be interested in a streaming service that would not allow them to keep a permanent copy of the music they were listening to. While this preference is now appearing as a clear generational trend, with younger listeners preferring to stream, and older listeners preferring to download (BPI 2011, Mulligan 2011), the BPI in its 2011 report titled "Music Consumption in the UK" acknowledges the growth of streaming and subscription services, but refers to them as "niche" (p.8). According to the BPI, as of 2011, "65% of UK music consumers still want to own their music and 56% stress that they like having a music collection to keep" (BPI 2011:8). In fact, between 2009 and 2011, the BPI found a 4% increase in the overall UK market's preference to own rather than rent or stream music, with even a majority (57%) of the youngest, most digital-savvy consumer segment preferring to own their music collections.

One possible explanation for the preference to keep files is that streaming services require a wireless or cellular data connection in order to function, so many underground commuters, for example, would not be able to stream music on their journeys. Streaming services could also make it more difficult in some circumstances to share music with friends on demand (as opposed to sharing playlists).

Interoperability, while mentioned as an aspect of ease of use, could also be considered an aspect of convenience. For example, Amberg and Schröder (2007) found that consumers value DRM-free songs more than DRM-protected ones because of the freedom from restrictions the DRM-free songs provide. DRM is frequently seen as an inconvenience that makes services less attractive (Helberger et al. 2004, Amberg, Schröder 2007, Kunze, Mai 2007, Papies et al. 2011). Consumers using paid download services expect (or would like) to be able to download a song once, and copy and transfer it as many times as they wish (Helberger et al. 2004, Amberg, Schröder 2007), though many have used and continue to use paid services that do not allow this. Helberger et al. (2004) concluded that if DRM is to be used in paid services, there should be a strong value proposition generated through innovative service features, especially when paid business models are ultimately competing with free.

The demand for something that is free can be different than the demand for something that costs money, so it is reasonable to suggest that a free product tends to attract people who would not have paid for that product in the first place (Oberholzer-Gee in Schwartz 2004, Cooke 2006).

Studies have found that consumers do not necessarily download free music as a substitute for purchasing music (Levin et al. 2004, Siegfried, Ashley 2006). Cooke (2006) is one of many who suggest that people who pirate a song might not purchase that song if illicit downloading services did not exist in the first place. This is an important finding in relation to the argument that free services could cannibalize the revenues of paid services. Sampling (previewing) behaviour is prevalent across literature (e.g. Swatman et al. 2006), with many consumers who go on to purchase music after illicitly downloading saying that they like to listen to a song before they purchase it. Evidence of the potential commercial advantage of meeting this desire to sample is Apple's decision to extend most song previews on iTunes to 90 seconds up from 30. Nevertheless, it is important to consider that there are still illicit music downloaders who have no intention to engage with a legitimate service or make a future purchase after listening to free downloads (McKenzie 2013). Likewise, it is equally important to consider that there are consumers who, after streaming or downloading music for free via a legitimate service, will have no interest in subsequently purchasing those songs even if they continue to listen to them (e.g. even as a higher quality file, or purchasing a file that results in the availability of additional features or benefits). This thesis specifically considers free services (e.g. legitimate versus illicit) given that it is related to the problem of how to successfully monetise free downloading behaviour via an ad-supported download model.

Price sensitivity is another common theme across literature. Authors such as Molteni and Ordanini (2002), Walsh et al. (2003), Papadopoulos (2004), and Chu and Lu (2007) mention themes such as attractive pricing, price sensitive consumers pursuing the cheaper option (whether it is legitimate or not), consumers believing it is "irrational" to pay for music when so much is available for free online (e.g. McKenzie 2013), and that what is "offered on P2P networks is more useful and attractive than the paid version" (Helberger et al. 2004:110).

The term 'convenience' is rather broad, and is explored further in primary research. In particular, consumers are asked about their opinions regarding time,

delays, their expectations in this regard for a legitimate free service, and to what extent they would be prepared to accept DRM on such a service.

3.2.2.4 Wide range of products and features

For an online music service, the 'products' are the songs on the service. Music downloaders value having a wide catalogue of content to browse and search from at their convenience, and at a minimal perceived cost (e.g. time spent searching for a song) (Walsh et al. 2003, Helberger et al. 2004, Amberg, Schröder 2007, Chu, Lu 2007, Plouffe 2008).

The breadth and depth of a service's music catalogue is an important consideration in using an online music service (Molteni, Ordanini 2002, Walsh et al. 2003, Amberg, Schröder 2007, Chu, Lu 2007, Kunze, Mai 2007, Music Experience and Behaviour in Young People 2008, Papies et al. 2011), yet there is no practical definition available for what constitutes a 'big enough' or 'good enough' catalogue. A limited product offering can be a turnoff to customers (Jarvanpaa and Todd 1997 in Yang et al. 2004), as customers prefer to conduct most of their transactions in one place when possible (Yang et al. 2004).

The size of a service's music catalogue is important. McKenzie (2013:85), commenting on the Australian market, says that iTunes is the dominant service in that market, despite other legitimate alternatives that are substantially cheaper but have only "limited music catalogues". He suggests that some consumers can be driven to illicit channels as a result of being dissatisfied with the perceived premium charged by iTunes, because they cannot find their desired songs on the other (less expensive) legitimate services, saying "even the most lawful consumer will have their limits tested if faced with the choice between a free illegal copy and an excessively priced legal alternative, which to all intents are identical in quality" (McKenzie 2013:85).

The availability of songs on a service is very important. Ho and Weinberg (2011) mention that a lack of content availability on a legitimate channel can spur people to use illicit channels. Indeed, 26% of survey respondents in primary research for this thesis said they "frequently" used illicit channels to obtain music, when they could not find what they were looking for on a legitimate service.

P2P services essentially act as gigantic global aggregators of an enormous amount of music. Studies have shown that many consumers who use P2P services do so because they can access new, unreleased, rare, or niche music that they would not otherwise be able to find in a (legitimate) physical or online music store, such as bootlegs of live concerts, music by small independent bands, or music by foreign artists. Sometimes this unavailability is due to the complexities of negotiating publishing rights, or the artist simply not wanting to release their music on an online service. As an example, The Beatles refused to make their music catalogue available for purchase in digital download form until November 2010. Prior to that, if consumers wanted to listen to The Beatles on their portable music players, they had to rip music from their personal collections, or find the music on illicit download sites.

Regarding features on a service, Waelbroeck (2013:7) notes that innovative service features (e.g. playlists, recommendations, management of metadata) can create value for consumers. Research has found that downloaders like to have access to music-related information, up-to-date artist information and the latest music (Walsh et al. 2003, Amberg, Schröder 2007). Kunze and Mai (2007) found, however, that having up-to-date artist information was not an important decision making factor affecting paid service use for most people. Constantinides (2004:121) found limited evidence in literature that "free extra services" enhance online consumers' web experiences, while Amberg and Schröder (2007) found that subscription-based users (often heavy downloaders) saw "extras" as added-value. Consumers value and may even pay for premium content such as liner notes, lyrics, special information about artists, and exclusive interviews, and they may make use of the ability to purchase merchandise through an online music download service (Walsh et al. 2003, Amberg, Schröder 2007), though Amberg and Schröder found that the ability to purchase merchandise through a service is not very important to consumers.

Entertainment and interactivity can be important, positive aspects of an online service (Peng et al. 2004). Joines et al. (2003) suggest the incorporation of interactive components such as recommendation engines and customer-posted reviews to assist consumers in their search for information, though these recommendations were made based on a small sample (n = 59). Recommendation engines have also been discussed by industry analysts such

as Mike McGuire, a Vice President with Gartner (in Kiss 2010), as a feature offering perceived value to service users.

It is difficult to define what a 'large' music catalogue is. As such, it is useful to examine in primary research how not being able to find desired songs affects attitudes toward and perceptions of a service, and what users perceive as being an adequate catalogue in order for them to consider using a service (e.g. must the service have all of the music they are seeking, most of it, or only some of it). Similarly, various features have been mentioned in this section as possibly adding value, and primary research gauges the value/importance consumers see in these, if any.

3.2.2.5 Personalization

Consumers prefer offerings and information that are targeted to their particular needs and interests (Bako in Park, Kim 2003, Kulviwat et al. 2004). Personalized (targeted) services can increase enjoyment and perceived usefulness, but personalization must be balanced with the perceived intrusion on one's privacy. For example, some services may embed tracking capabilities within songs or the music player's software that show how and where the songs or service are being used, feeding that information back to the company's central servers for analysis. This information could potentially include a wider range of consumer data, or personally identifying information.

Music services with personalized recommendation engines are apparently of value to consumers (e.g. BPI 2011, but the extent of the value was not noted in any literature), though Amberg and Schröder (2007) found that there may be little value in users being able to have personalized profile pages on a service. This suggests that there is more value in being able to personalise some elements of a service over others.

The perceived value of personalization is explored in primary research, particularly personalized content recommendations. Section 3.3 discusses issues related to targeted advertising in more detail.

3.2.2.6 Technically reliable and efficient

Reliability is an important part of a user's online service experience. The technical quality of the music file downloaded, the ability to successfully complete a transaction online, and the ability to efficiently download a music file are important aspects of perceived service quality (Cai, Jun 2003, Walsh et al. 2003, Constantinides 2004, Amberg, Schröder 2007, Kunze, Mai 2007, Sousa, Voss 2009, BPI 2010).

If a service crashes, delivers poor quality files, becomes temporarily unavailable, or is generally unreliable, it is unlikely to have many repeat users, as customers will tend to decide that the service has not met their needs, and will go elsewhere to satisfy those needs. This is particularly true of failures during a transaction attempt (Boston Consulting Group 2002 in Cai, Jun 2003). Sousa and Voss (2009) in their literature review say that service failures result in reduced trust toward the service provider, which affects loyalty and the ability of the service to retain customers.

As discussed in Section 3.1.3 , time holds value, and perceived delays, whether due to poor design or technical issues, can negatively impact attitudes toward a service.

Primary research investigates quality expectations, what technical problems downloaders have experienced using music download services (if any) and their reactions after such experiences (attitudes and actions taken), to understand not only the potential range of expectations, but also tolerance for services on which they encounter negative experiences.

3.2.2.7 Good customer service

Consumers value good customer service, and customer service departments can be used to develop positive relationships by promptly, adequately, and appropriately responding to questions and concerns (e.g. Constantinides 2004).

It is possible that the perception of good or excellent customer service holds more importance for paid services than unpaid ones, in terms of how cost and value are perceived. For example, people may expect a paid service to have a customer service department because they perceive that they are paying for it as part of their use of the service. Zeithaml et al. (2002) mention that users of

websites are not usually concerned about how to contact customer service, because that is only relevant if there is a problem or question, and is not typically part of the routine use of a service.

3.2.2.8 Trust and keeping promises

While various definitions of trust exist in academic literature, Wang and Emurian (2004:107) note that trust is subjective and situational, and being "a complex and abstract concept, it is difficult to define trust and to identify the elements that construct it". They note that because researchers cannot agree on a basic, uniform definition, "trust is often conceptualized by researchers according to the features of a particular context" (p.108).

According to various researchers, the concept of trust essentially involves one party having a belief in or expectation of another party to deliver something, provide support, or be relied upon to do the right, expected, or promised thing (Schoder, Yin 2000, Daignault et al. 2002). Trust can therefore be "earned by meeting expectations" (Dayal et al.1999:3), and consumers are more likely to be loyal, committed, and willing to do business with a site they perceive as being trustworthy (Shankara et al. 2002, Wang, Emurian 2004). In terms of a service's ability to deliver on promises, it is reasonable to expect that if a service promises a key feature or experience that a consumer values, and the service does not deliver on that promise, the consumer will be displeased, have less trust in the service, and may be less likely to continue to use the service. Such promises may include aspects related to safety, security, products, performance, or myriad other areas. The marketing and presentation of a product or service may influence the perceived value of the service and its features, however, good marketing cannot disguise poor features or inadequate functionality. Therefore, while it is important to build up the value of a new service in the eyes of consumers, it is equally important that it delivers on promised value.

Trust is associated with risk and vulnerability (Daignault et al. 2002) and includes the concepts of credibility, reliability, and confidence (Wang, Emurian 2004). For online environments, the type of trust that is best to build, and how to most effectively do so, varies based on aspects such as the type, sector, or purpose of the website (e.g. banking versus watching videos on YouTube). Some transactions are considered higher risk than others (e.g. expensive purchases),

and in those cases, failure to deliver a purchased product or service may have greater consequences for the buyer/user (Bart et al. 2005).

The loss that can be experienced by a failure in trust is not necessarily financial. It could include a user getting a virus from a website, inconveniencing them and requiring them to invest time and effort into fixing the problem.

The subjectivity of trust means that individuals will have their own unique perceptions and requirements in a given situation (Wang, Emurian 2004, Bart et al. 2005). A user's personality, experience, expertise, and familiarity with the online environment and particular brands or types of websites can influence his perceptions. Constantinides (2004), in his review of literature on online purchase behaviour, suggests that companies (particularly new ones) that have only an online presence face much greater challenges in establishing trust. Kunze and Mai (2007) found that when it comes to risk, consumers tend to place value in a well-known brand more than they do in the size of a brand alone. Other researchers have found this to be true, particularly for less experienced online shoppers (Shankara et al. 2002, Ha 2004, Bart et al. 2005).

Studies on online trust are predominantly focused on financial transactions, whether they be purchase or service-based (e.g. shopping, online banking). Nevertheless, researchers have found trust characteristics to be applicable across different sectors, though some elements are more relevant in some sectors and segments than others.

Factors that influence trust in the online environment include but are not limited to perceptions of information privacy and security, word of mouth, online feedback/ratings, personalization of service/content, perceived size and reputation of the service provider, provision and presentation of information on the website, how up-to-date site content and information is, aesthetics, and ease of use and navigation (Daignault et al. 2002, Shankara et al. 2002, Ha 2004, Koufaris, Hampton-Sosa 2004, Wang, Emurian 2004).

Yang et al. (2004) found that while the security of an online service was listed as a key concern in many studies, it is generally less significant a factor in a user's determination of service quality. This suggests that quality and trust are distinct but related. They say that an increasing number of people are accustomed to shopping online, and that these more familiar users make assumptions about the

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minimum level of security on a service. Nevertheless, perceived privacy and security affect feelings of trust online, and that affects the perceived risk of using a service (Chen, Chang 2003, Chen, Barnes 2007).

In order to provide personalized experiences to users, it is necessary for companies to collect information which can include usage patterns indicating interaction with a service, demographic information, current location information, or information about a consumer's interests. It is important to balance such personalization and data collection with consumers' privacy concerns, and to inform users of what will and will not be done with their personal information (Park, Kim 2003, Constantinides 2004, Kunze, Mai 2007). For example, DRM can be engineered to record information such as content usage patterns, and potentially personally identifying information, leading to privacy concerns (Helberger et al. 2004).

Trust and perceived security are important considerations for ad-supported services, especially since advertisers will want to be able to serve targeted advertising to the 'right' users using accurate information provided by the service. Consumers, however, might be reluctant to have their usage patterns tracked, or to provide personal information. Many people give fake names, ages, and lie about where they live (Norton's Cybercrime Report in BBC News 2010), presumably for reasons such as not trusting the service enough to provide true information, or not feeling that the service has a right to have or use one's personal information.

An example of where trust was broken by a large, well-known brand was when Sony BMG in 2005 introduced a rootkit (software that embeds itself into a computer's operating system) onto some of its music CDs via a third-party's copy protection DRM, which installed itself silently and hid itself, opening the door for viruses on unsuspecting consumers' computers. This resulted in class-action lawsuits against Sony BMG, and very upset consumers.

Hacks, spyware, malware, and viruses are inherent risks that come with using illicit content sharing services (BPI 2010). Many users of illicit services are concerned about getting viruses as a result of their activities. Up to 70% of P2P users do not make their music collections available online (i.e. do not allow members of the network to view/access songs on their hard drives), and the

University of Hertfordshire/British Music Rights (Music Experience and Behaviour in Young People 2008) conducted a study that found that people who did not share music online overwhelmingly did not do so for fear of poor security and getting computer viruses.

It would be reasonable to assume that consumers would perceive legitimate services as being free from undesirable consequences such as viruses and secret software, and would expect a consistent service experience in this regard. Indeed, Walsh et al. (2003) say that quality is less likely to fluctuate on a legitimate service. However, while from a trust point of view consumers may feel safer using a legitimate, virus-free service, there is still a potential trust issue with legitimate services regarding the security and usage of personal data and information.

With regard to online advertising's perceived effect on the trustworthiness of a website, Wang and Emurian refer to studies by Egger, Cheskin/Sapient, and Nielsen (see Wang, Emurian 2004) noting that the presentation and usability of a service's web interface affects trust. While advertising is not mentioned specifically, its presence, format, and quality presumably contributes to the perception of a website. It can therefore can be inferred that advertising on a website has the ability to affect perceptions of trust.

This thesis is not about trust and so is not specifically concerned with how trust is formed, however, it is concerned with how certain elements of a music download service may affect perceived trustworthiness of the service. Primary research therefore asks consumers about their perceptions, attitudes, and experiences related to trust, perceived security, willingness to provide personal/demographic information, as well as their positive and negative service experiences.

3.2.2.9 The desire to belong to an online community

It is possible to create a sense of community by facilitating communication opportunities between service users, the ability to post recommendations about music or groups, the ability to view and post additional information about artists and events, and the ability to share music with others (Giesler, Pohlmann 2003a, Walsh et al. 2003, Amberg, Schröder 2007, Music Experience and Behaviour in Young People 2008).

There are differing views on the value that consumers place on "community connectedness" (as Plouffe 2008 terms it) in the context of file sharing and paid music subscription services. The majority of research suggests that a sense of community belonging is valued by P2P downloaders, and Kunze and Mai (2007) found that being part of an online community was not seen as an important factor in determining whether to use any particular paid download service. Literature on this topic implicitly suggests that community connectedness is more relevant to P2P users, subscription-based service users, and regular and heavy downloaders (i.e. community is not particularly relevant to occasional downloaders), however, Waelbroeck (2013:7) from an economic/service perspective, refers to online communities as "great tools to explore new music and to get personal recommendations".

In September 2010, Apple launched Ping, a social network attached to its iTunes music store. It was apparently only briefly popular, with little user activity after its initial launch, and some seeing the service as less of a social network than simply a way to automatically promote music purchases by broadcasting them automatically to the network, in a Twitter-like style (Gross 2010, Milian 2010). By late 2012, Apple announced it was shutting the service down, due to user disinterest (Musil 2012). The potential success of a social service as a mechanism for promoting music may be dependent on the nature of the service and its relationship to music – i.e. there is a difference between a social network that includes music, and a social music service that is based on music, such as Turntable.fm, which exists to facilitate the interactive sharing of music with friends and strangers (Van Buskirk 2011a, 2011b).

In order to gain an understanding of the value of an online community, consumers are asked as part of primary research whether they feel that a sense of belonging to an online community within an ad-supported music download service would be important or useful to them, and if so, why, and what they would expect in terms of functionality and utility (e.g. the ability to comment on albums or songs, social networking).

3.2.3 Summary of quality factors

As discussed in this section, eight common factors that affect a person's perception of the quality of an online service have been identified for use as an

initial guide for linking service quality to key service characteristics of music download services:

- Aesthetically pleasing

- Easy to use

- Offers a degree of convenience to the user versus offline alternatives

- Wide offering of products and features personalized to the user

- Technically reliable and efficient

- Customer service provides prompt responses and the user perceives a good relationship with the service provider

- Trustworthy and reputable providing clear terms of use, accurate information, and security of information

- Delivers on promises

This facilitates the linking of perceived service quality with aspects of a free, ad-supported music download service so that there is a contextual direction for research into attitudes during primary research.

3.3   Introduction to online advertising

This section begins with an introduction to basic (traditional) advertising theory, then discusses the nature of the online environment, and how the nature of online advertising can affect consumer attitudes, perceptions, and evaluations of a service or website.

3.3.1 Basic advertising theory

Advertising has traditionally involved the one-way transmission of a message to recipients, to create awareness, brand associations, and reassure customers of their choices, and is defined by Belch and Belch (2009:18) as "any paid form of non-personal communication about an organization, product, service, or idea by an identified sponsor".

Consumer responses to advertising can be described by the 'response process'.
There are a number of different models outlining this process. Four commonly
used models are (see Belch, Belch 2009):

- AIDA (Attention, Interest, Desire, Action)

- Hierarchy of Effects (Awareness, Knowledge, Liking, Preference,
  Conviction, Purchase)

- Innovation Adoption (Awareness, Interest, Evaluation, Trial, Adoption)

- Information Processing (Message Presentation, Attention,
  Comprehension, Acceptance/Yielding, Retention, Behaviour)

These models all progress through their various stages in a linear fashion,
starting with cognitive elements, proceeding to affective (emotional) ones, and
then finally to conative (behavioural) ones. The cognitive stage addresses
consumers' awareness of a message. In the affective stage, the consumer is
either disinterested in the advertisement (and the process stops) or the
advertisement has captured some level of interest, triggered an evaluation, and if
the advertiser is successful, the consumer then desires the object in the
advertisement. The consumer may or may not then proceed to the last stage in
the response process, which is action, whether that be the purchase of an object
or the adoption of an idea.

Noise, whether actual (i.e. physically present in a channel) or perceived (i.e.
clutter of other advertisements competing for attention), can affect whether and
how a message is received, and when advertising itself is perceived as noise,
that can affect attitudes toward the medium it is displayed in (Cho, Cheon
2004:90).

The research carried out for this thesis is not directly concerned with how to
market a music download service or generate advertising revenue for such a
service. Rather, this research considers online advertising from the perspective
of consumer tolerance and attitudes, and accordingly, the effect that the
advertising on a legitimate free music download service may have on users'
attitudes toward the service. Thus, there are some response process models that
are more appropriate for consideration than others, when deciding what

contextual approach to use to investigate aspects of advertising in primary research. Likewise, since this is not a piece of research on advertising in particular, it is not considered necessary to dissect the elements of each model, but instead necessary to understand their core components and which are contextually more applicable to the research at hand in terms of framing questions for exploration in qualitative research.

A review of literature on online advertising formats in subsequent sections suggests that a hybrid of AIDA and Hierarchy of Effects would provide a more accurate process description for this thesis due to the nature of the online environment and the steps a consumer goes through within it. These processes contextually relate advertising more specifically to the consumer decision making process, as opposed to for example, the Innovation Adoption model which is geared toward the usage and adoption of a service.

Given that this study is focused on attitudes, the 'action' component of these models is not considered to be relevant. As such, the hybrid process would have the following steps:

- Attention/Awareness (do consumers notice the ads or do they filter them out)

- Liking/Interest (if consumers do not like an ad, for example, because they find it untrustworthy, irritating, or boring, the process will stop)

- Desire (consumer desire for the object in the ad, for example, ads that are considered useful may contribute positively to attitudes toward the service)

This outline provides a basis for exploring attitudes toward advertising in primary research, in combination with the aspects that are discussed in subsequent sections.

3.3.2 Traditional versus online advertising environments

This section considers advertising within the context of being inserted into content (e.g. television, terrestrial radio, newspapers), as opposed to ads as standalone objects (e.g. brochures, direct marketing) in order to illustrate the fundamental similarities and differences between offline and online advertising.

Broadcast media (television and radio) and print media (e.g. newspapers, magazines) have traditionally been the main and most effective sources of advertising (Belch, Belch 2009).

By definition, television is a targeted advertising medium, with multiple channels, each targeted towards particular demographics. While television's demographic segmentation is not as finely partitioned as other media formats such as radio and online, (networked) digital set-top boxes can allow useful data to be collected on viewing habits, that can be used to analyze audiences, and potentially suggest more personalized content and services.

Television is a captive, high-impact, low-involvement medium through which viewers are typically exposed multiple times to the same advertisements (Elliot, Speck 1998). Though advertisements are forced upon the viewer, this does not mean that viewers sit through all the commercials that are presented to them. Television advertising can also be perceived as clutter – just as online users can attempt to avoid advertisements, television audiences can fast-forward through recorded commercials, channel surf, or use commercial breaks to engage in other tasks, thereby ignoring the advertisements presented to them.

Radio is a high-impact medium that advertises to a "local" area (a station's broadcast radius). The number of radio stations in a local market typically allows for demographic segmentation to a much finer degree than television (Belch, Belch 2009). Radio is sometimes a captive medium (e.g. listening in a car), and sometimes not (e.g. listening to it in the background when tidying one's house). Though radio advertising is finely targeted, listeners can still perceive clutter in this medium. They can mentally tune out when commercials are on, for example when they are listening to the radio as background noise, or on a drive to work, a listener may tire of what they perceive as excessive commercials and tune into another station.

Print media is a high involvement, non-captive medium that allows readers to consume advertising at their own pace. Because print media can reach finely targeted audiences, for example, by specialist magazine genre, it is often perceived by readers as less intrusive, having greater relevance, trustworthiness, informative-ness, and utility, and is therefore relatively expensive to advertise within (Belch, Belch 2009). Print media can also be perceived as having ad

clutter; for instance, some magazines have a nearly 50:50 ratio of advertisements to editorial content, or are perceived as having irrelevant ads (Elliott, Speck 1998, Kaiser, Song 2009).

While different product categories require different levels and types of information to generate product awareness or positive perceptions, marketers should take note that ads with too much information are not often as effective, and can confuse consumers, failing to communicate a message that the consumer can decode and interpret (Herbig, Kramer 1994). The provision of appropriate information and aesthetic design are also important considerations in the conveyance of trust. Accordingly, advertisers should focus on transmitting appropriate messages as opposed to a large number of product messages that will overload the consumer (Zellman et al. 2010).

Clutter is a subjective, contextual judgement that can be defined as a consumer's belief that advertising in the medium is excessive (Elliott, Speck 1998, Goldsmith, Lafferty 2002, Ha, McCann 2008). Perceived clutter can be an irritant in traditional media, and consumers have the ability to tune out advertisements they do not want to interact with, either mentally, or by physically skipping ads or tuning into a different station. Clutter has the potential to create even more irritation in a captive environment, where a consumer is forced to deal in some way with the advertising before being able to resume watching or listening to desired content. It is not clear from the literature whether clutter is better tolerated or even welcomed to a certain extent when the content is perceived as highly relevant or helpful.

Engaging advertisements are important (e.g. Ha, McCann 2008, Taylor 2009). If audiences persistently ignore advertisements (whether due to clutter or poor production), then there is no benefit to the advertiser, because they will get a poor return on their investment. Audiences' negative perceptions of advertising also have the potential to affect attitudes toward the station, publication, or channel they are displayed within.

Online advertising should consider issues such as clutter, engagement, and segmentation. Unlike traditional media, which at its best is only designed to segment into small groups, the nature of online advertising provides advertisers with the ability to directly target messages to individuals, though this may

sometimes involve consumer discomfort or concern related to perceptions of the privacy and security of personal information.

The Internet could perhaps be considered a hybrid form of broadcast media, because it combines print, audio, and visual formats into a single channel. The medium allows for dynamic, two-way communication between advertisers and users, where advertisers can send their message to users, and users can respond and provide feedback directly to the advertiser, providing a rich database of information for analysis that can be used to refine segmentation and messaging.

Literature describes the online environment as predominantly goal, task, information, and interactivity oriented, rather than entertainment oriented. Internet 'users' interact with the medium rather than being passive media consumers (e.g. Cho, Cheon 2004, Ha, McCann 2008). Users searching the Internet with a particular goal or task in mind often have a limited timeframe in which to complete such tasks (Cho, Cheon 2004). While the vast, non-linear nature of the online environment allows motivated users to achieve goals in a 'self-paced' fashion, online advertising can help or hinder the consumer in his goal achievement, for example, by providing useful information, or by interrupting goal achievement and causing frustration.

Online advertising is becoming more popular and taking a larger share of corporate marketing budgets, as consumers increasingly gravitate to the online environment to consume 'traditional' media formats such as music, films, television, and editorial content, and new media formats that are designed specifically for the Internet (GroupM9 April 2012, IAB Europe 30 May 2012, Nielsen 2012). In the UK, by the end of 2011, online advertising had a greater market share than any other form of advertising, at 28% (Internet Advertising Bureau UK 2012). While advertisers are following their target markets from traditional media outlets to the Internet, the online environment is much more fragmented than traditional media, and advertisers must carefully decide where to spend their money.

Corporate marketing budgets are not unlimited, and it can be difficult for a new media service to secure advertising from premium brands (e.g. recognizable and trusted brands as opposed to unknown brands) when there are new ad-

supported social media and content companies launching, each claiming it has the potential to be 'the next big thing'.

3.3.3 Online advertising formats

Generally speaking, at a high level, there are two types of online advertising: text-based, and image based (image-based ads may also include sound). In both cases, it is possible to display targeted advertising, for example, based on subject, user behaviour (i.e. tracking cookies), or a user's geographic location. Table 9 describes some common advertising formats.

Type of Ad	Description
Banner	A rectangle usually found at the top, bottom, left, or right of a webpage. Graphics may be static or dynamic
Pop-Up/Under	A new window that opens on top of or behind the page being viewed
Floating	Displays on top of (floats on top of) the content the user wishes to view
Interstitial	Displays between page views, typically giving an option to click a hyperlink to skip the ad and go to the viewer's intended destination
Video	Typically plays like a television commercial, but may have a shorter duration, and may allow the viewer to interact with the ad for more information (e.g. product website) or to choose a version of the ad to play (i.e. choose your own adventure)
Rollover/ Expanding	An ad that expands when the computer mouse rolls over it
Advertorial	Like an infomercial, but text-based. Essentially paid editorials
Text-Based	e.g. Google Ad Words, sponsored links

Table 9: Common online advertising formats

Internet advertising began in 1994 with banner ads. While online ads enjoyed their highest click-through rates in these early years (users clicking on advertisements for more information), many companies failed in their attempts at effective online advertising. These failures were due to a lack of understanding of how to use the Internet as a marketing tool, with many companies thinking they

could directly transpose traditional advertising principles to the online world (Belch, Belch 2009, Taylor 2009).

Despite the increasing investment in online advertising, its novelty appears to have largely worn off. Click-through rates have declined significantly, due to consumers losing interest (Goldsmith, Lafferty 2002), or being put-off by the "cluster bomb" advertising approach (Cho, Cheon 2004:89).

Technological improvements have provided an opportunity for advertisers to use richer media in their advertisements, as well as more advanced algorithms allowing for finer targeting, customization, and measurement of consumer interaction, thereby leading to the potential for more effective ads.

Though banners are still one of the most prevalent online ad formats, newer formats exist such as video pre/post-roll, in-stream advertising (e.g. audio commercials, 'lower third' advertising over video content), and mobile phone advertising. Aside from mobile phone advertising, however, there seems to be a lack of academic research related to these increasingly prevalent next-generation formats. There is apparently little academic research covering consumer tolerance of online video advertising, which is interesting considering it is an important driver of online advertising revenue (IAB Europe 30 May 2012). Rosenkrans (2009) considers online video advertisements, but only in terms of measuring effectiveness via click-throughs.

Mobile phone advertising is not considered in this thesis because it is a separate and distinct medium from the Internet, with markedly different interpersonal dynamics. The service in question in this thesis is used via a computer, not a mobile phone, but future research could examine the topics in this thesis as they relate to mobile devices.

Much of the literature on advertising and attitudes has been descriptive and generic, discussing attitudes toward advertising in general (i.e. the concept or general nature), but not toward any specific format (Burns, Lutz 2006). Literature that does consider particular formats is primarily focused on perceived clutter, and measured effectiveness of legacy formats (e.g. Cho, Cheon 2004, Rosenkrans 2009).

Interactive advertising is an emerging sector with ample room for development (Cheng et al. 2009). It could be argued that existing literature on legacy formats is becoming less useful given that users are able to interface with new, interactive advertising formats in ways previously not possible, such as 'choose your own adventure' video ads.

Burns and Lutz (2006) found in their study of (legacy) online advertising formats that format type has a strong correlation with consumers' attitudes and behavioural responses. Their study, however, does not include newer formats such as video or rollovers. The format gap in the literature is thus even more important to mention because it should not be assumed that consumers will perceive or react to online video advertisements in the same way that they would television advertisements (also video) or banner advertisements (also online). Indeed, consumers may perceive different advertising formats as presenting different barriers to goal achievement (Cho, Cheon 2004).

'Getting it right' is a very important consideration for online advertisers. Ha and McCann (2008:588) state that "the value of an audience to advertisers is determined by its receptiveness to advertising". Thus, it is important to understand the variables that are involved in consumers' attitudes towards advertising formats, in order to be able to predict consumer responses (Burns, Lutz 2006) and engineer ads that consumers are more receptive to.

This thesis considers video pre-roll advertising specifically, because it is typically found on legitimate, free commercial content services (e.g. SpiralFrog, Hulu, YouTube, Vevo, network television broadcasts online) and can actively interfere with consumer goal achievement by forcing delays. An example of video pre-roll is a commercial shown before the main content the viewer wants to see (post-roll is showing the commercial after the main content).

3.3.4 Paradigms that can be applied to online advertising formats

There are two explicitly identified paradigms from the reviewed literature that can be associated with perceptions of online advertising.

The first (Ha, McCann 2008) is what one could term a pragmatic paradigm that considers structural aspects of an ad (physical attributes that advertisers can control), functional aspects of an ad (consumer attitudes and orientations), and information processing aspects of an ad (a person's limited ability to process

information, leading to perceptual bias that is not directly under the control of advertisers).

The second (Cho, Cheon 2004) considers responses to advertising stimuli using "indicators" of cognition (evaluative belief), affect (feeling about the ad), and behaviour (active avoidance of the ad), and constructs of "goal impediment", "perceived clutter", and "prior negative experience".

While Cho and Cheon's model (based on the results of an online survey they conducted) attempts to delve into and apply aspects of consumer psychology, it is inherently biased in its consideration of only negative aspects and emotional reactions – it is essentially a model for ad avoidance.

Ha and McCann's model, which is based on a review of literature, seems to more objectively link consumer behaviour to the structural and functional aspects of an advertisement. It defines aspects of consumer behaviour that advertisers have "control" over, and links structure and function to a consumer's ability to process information. Though their model is related to perceived advertising clutter, it appears to be general enough to be adapted for a discussion of attitudes and advertising in this literature review, and is one of the few papers that mention video advertising online.

Perceptions of and attitudes toward advertising are not influenced solely by one factor. It has already been established that these can be affected by factors such as perceived clutter or time delay. It is therefore important to consider classifying the perceptual areas that influence attitudes toward an online advertisement.

A review of the literature found that Burns and Lutz (2006) and Cheng et al. (2009) were able to explicitly and robustly justify their categorization choices, in contrast with many other papers. The three categories common between their research papers can be referred to as information (including usefulness), irritation (including disruption, intrusion, and annoyance), and entertainment (including amusement). Burns and Lutz refer to composition (aesthetic attractiveness) as another category, but it is not explicitly stated as a component in a comprehensive framework proposal, so has been excluded as an explicit category in this literature review, though it is addressed implicitly because of its relationship to perceived service quality.

The findings of Burns and Lutz and Cheng et al. are supported by Goldsmith and Lafferty (2002), who argue that attitudes and positive website evaluations are based on "entertainment, informativeness, and the organization" of a website.

3.3.5 Attitudes towards online advertising formats

An attitude toward an ad can be defined as "a predisposition to respond in a favourable or unfavourable manner to a particular advertising stimulus during a particular exposure occasion" (Lutz 1985 :46). Attitudes toward online advertising (and the desire to avoid ads online) are subjective and contextually influenced (Cho, Cheon 2004, Cheng et al. 2009).

According to Cheng et al. (2009), consumers have a generally positive attitude toward Internet advertising, though Goldsmith and Lafferty (2002:324) found that online ads, while not explicitly "disliked" by the majority of their sample, "were not the most liked" form of advertising when compared with television, radio, magazine, and newspaper advertising, saying that "Only radio ads fared worse".

Researchers have found that frequent Internet users, men, youth, less educated, and less wealthy people have more favourable attitudes toward online and offline advertising than others, and as people become wealthier and more educated, they tend to avoid ads in mass media (Shavitt et al.1998, Korgaonkar, Wolin 2002, Wolin, Korgaonkar 2003). Goldsmith and Lafferty (2002), however, found that gender and age are not significant in affecting attitudes towards the advertisements displayed on a website. This raises an interesting question for exploration in primary research.

The format of an ad, the presentation/complexity of a website, the usage context (information versus entertainment), and an ad's intrusive/disruptive capability can all influence attitudes toward advertising on a website (Goldsmith, Lafferty 2002, Wolin et al. 2002, Cho, Cheon 2004, Burns, Lutz 2006, Ha, McCann 2008). A website that is simply presented and favourably viewed by consumers will tend to encourage more positive attitudes towards the advertisements displayed on it (Bruner, Kumar 2000, Wolin et al. 2002, Ha, McCann 2008:56), though Goldsmith and Lafferty found that the website itself will tend to have a positive or neutral effect on attitudes toward the brand in the ad, or only a marginal negative effect. Literature on trust (see Section 3.2.2.8) also notes that a simple,

aesthetically pleasing presentation of a site helps to engender feelings of trustworthiness.

Burns and Lutz (2006) found that consumers are able to differentiate between advertising formats and the ads themselves, but found that the two can still be related. For example, they found that companies that use pop-up ads are not generally viewed as market leaders by consumers, which in turn affects consumer perceptions of the brand in question (e.g. credibility).

Common sense dictates that the likeability of an ad may be a good predictor of its effectiveness, and this was indeed found to be true by Haley (1990 in Burns, Lutz 2006). Consumers look for credible, trustworthy sources they can identify with, and past experiences, attitudes, and perceptions ("frame[s] of reference") affect how an advertisement is interpreted (Belch, Belch 2009:152). Consumers are also generally more receptive to well-targeted ads that provide them with relevant information (Wolin et al. 2002).

On the topics of trust and risk as they relate to online advertising, it is not clear in the literature what the conceptual link is between untrustworthiness and perceived safety, and whether the perception of untrustworthiness equates to concerns about the safety of using a website.

Taylor (2009) attempts to make it clear that an opportunity exists for advertisers to build valuable relationships with consumers online, but that this requires advertisers to execute their marketing in a way that engages and captures the interest of the consumer, rather than causing irritation or annoyance.

Trustworthiness of the source and content of an advertisement can affect perception of the advertising being interacted with. Misleading and confusing ads lead to negative attitudes (Wolin et al. 2002) which can affect attitudes toward the website or service displaying them.

The consequences of online advertisements' potential to irritate should not be overlooked. Internet advertisements are perceived as more intrusive than other media, and annoying, disruptive ads cause negative attitudes toward the offending brand and website, ad avoidance, and can ultimately drive consumers away from the offending website or service (Goldsmith, Lafferty 2002, Cho, Cheon 2004, Cheng et al. 2009, Papies et al. 2011).

Clutter is linked with intrusiveness, and the more intrusive an ad, the more negative the attitude that develops (Goldsmith, Lafferty 2002). Perceptual overloading, caused by too many messages being sent, an excessive number of advertisements being displayed, or too much information contained within an advertisement, causes irritation (Cheng et al. 2009). The presence of a large number of ads does not automatically result in negative perceptions or attitudes, because advertising placement plays a role as well (Goldsmith, Lafferty 2002, Ha, McCann 2008). For instance, bigger, centrally placed ads can be perceived as more intrusive (Ha, McCann 2008). Though intrusive ads may generate increased awareness, they are not necessarily more effective as a result (Goldsmith, Lafferty 2002).

Ha and McCann say that the timing of an ad's presentation is important. They argue that for certain formats such as pop-ups, it is best not to bombard users immediately when they land on a new page, and they imply that consumers should have a few seconds to get their bearings before they are presented with additional information to process. Their findings suggest that embedded audio advertisements (e.g. ads within song downloads) may not be very effective online because they would be forced on consumers and lead to the perception of being repeatedly subjected to low-involvement advertising in a captive environment.

Forced ad consumption can be considered highly intrusive, though for goal-oriented users this is potentially mitigated if the ad is relevant, useful, helpful, entertaining, or engaging (Cho, Cheon 2004, Ha, McCann 2008:572).

Despite the Internet being a predominantly task-based medium, literature mentions consumer desires for entertaining experiences (e.g. entertaining advertisements), whether the Internet is being used hedonically or pragmatically. Researchers have found that the entertainment value of an ad is an important success factor in online advertising, and that ads that highly involve consumers capture their attention and processing power more than ads that do not (Ha, McCann 2008, Taylor 2009). The more entertaining the ad, the more positive the attitude is toward the ad format, and the more annoying the ad, the more negative the attitude (Burns, Lutz 2006). While it might be possible to mitigate perceived irritation by adding entertainment value and interactivity to an ad (Taylor 2009), many Internet advertisements apparently lack entertainment value (Goldsmith, Lafferty 2002, Cheng et al. 2009).

The ability to inform, irritate, and entertain are relevant factors affecting attitudes toward online advertising. While literature considering these three key factors together does not state which are most important, it is quite clear that irritation is a prominent factor, perhaps the most important, and can be moderated by perceived informative-ness and entertainment value. There is a difficulty in achieving a balance between these aspects due to the subjectivity of their perception.

The size, placement, content, timing, entertainment value, and number of ads displayed can all affect irritation. Designers of websites and services that are based on ad-supported business models must therefore keep these factors in mind. It could be argued that clutter is necessary in order to provide sufficient revenue for ad-supported online business models (advertising volume), but there is the risk that the clutter will devalue a user's online experience and negatively affect attitudes toward the brand or website.

While the literature found on online advertising does not explicitly state that forced time delays affect attitudes toward advertising (it instead refers to more broadly to disruptiveness and intrusiveness), nor does it appear to discuss the effect of perceived trustworthiness/safety of the ad itself, these factors are considered in primary research.

3.3.6 Generating positive attitudes

Though attitudes toward online advertising in general and toward particular online formats are subjective, they can still be influenced by presenting ads in a way that is aligned with a consumer's goals. According to Ha and McCann's paradigm, advertisers can directly control only the structural part of an online advertisement (the physical attributes), and not the functional (consumer behaviour) or information processing (perceptual) aspects. However, it seems possible that advertisers can indirectly influence the functional and information processing aspects by effectively executing the structure of their advertising, and this is a very important consideration.

Aesthetically pleasing advertising designs can motivate and positively influence consumer attitudes towards ads (Wolin et al. 2002), and placement and design affect this. Advertisers can work to reduce perceived goal-impediment in various ways, for example, by focusing more intrusive advertising on destination pages,

where they have less negative impact compared with navigational (intermediate) pages (Moe 2006).

Ha and McCann (2008) also suggest that websites could limit the maximum number of advertisements that appear, and restrict advertisers to those who are able to provide well-executed advertising. They imply that this would improve consumers' perceptions of trustworthiness, aesthetics, and utility, and argue that reaching a smaller, more receptive audience with better quality advertising might actually be more effective than trying to reach a larger, less receptive audience using techniques that inadvertently irritate consumers and drive them away.

Ad relevance can be increased by personalizing an advertisement as much as possible (Cheng et al. 2009). The delivery of targeted, customized, context appropriate ads that are "highly consistent" with a consumer's goals can reduce perceived goal impediment that can be caused by advertising (Cho, Cheon 2004:94).

While highly targeted advertising is useful, some controversial incidents have taken place in the last decade (e.g. BT Phorm, Facebook's Beacon service), where users' personal details and habits have been sought out, recorded, tracked, and used by companies to display finely targeted advertisements. The frequent publication of stories by news outlets on online privacy suggests that more often than not, consumers are concerned about their privacy and are uncomfortable with their more intimate personal details being used to monitor their activities and them sell products and services. Many consumers nonetheless appear to continue to use the devices and services in question, for the sake of convenience, or the perception that they do not have a choice.

Companies such as Facebook could be said to 'push the envelope' where privacy protection is concerned, however history has shown that Facebook is established enough that many of its members continue to use the service even if they disagree with some of its practices.

There is a balance to be achieved between personalised service offerings, corporate analytics, and intrusiveness, and user acceptance is an important aspect to consider, particularly where negative public relations consequences may arise. It would perhaps be unwise for a brand new company to engage in

data analysis that consumers might find invasive, before they have built up any level of trust with their user base.

An example of an analytic approach that is less overtly intrusive is the approach taken by the legitimate free music download service Free All Music, which, during its public beta, encouraged consumers in the USA to claim a free song download, by logging into Facebook and 'liking' their page. Presumably the company used this as an analysis tool, purchasing the demographic information of its fans from Facebook, while reducing its risk (and market research costs) by outsourcing to a branded service that consumers are familiar with.

Researchers have found that the extent to which consumers perceive an advertisement and advertising source as trustworthy is important (Goldsmith, Lafferty 2002, Cho, Cheon 2004). Okazaki et al. (2007) found that the perceived credibility of the message provider influences a person's attitude toward an ad. Cho and Cheon (2004) suggest that linking online ads to the offline world, for example, to physical stores, can increase perceived trustworthiness.

Tolerance of advertising clutter, perceptions of forced advertising, and tolerance of ads delivered through particular formats are all important themes for exploration in primary research. This includes an examination of consumers' attitudes toward online advertising in the context of information, irritation, entertainment, aesthetics, and trust. Primary research explores these important factors, and the structural aspects that advertisers can work with in order to create positive experiences for users.

3.4   Free, illicit online music services

Given that this thesis compares free with free (illicit versus legitimate) and there is scant literature available on ad-supported services, free illicit services are examined here as the most appropriate/comparable substitute to a legitimate free service.

This section begins by discussing the profile of an illicit downloader, the ethical decisions they face, and the norms that may be applicable in such decision making. This is done in order to discover any areas that might also be relevant for a legitimate service (e.g. whether ethics or norms influence the decision to use a legitimate service rather than an illicit one), and to provide insight into why some people choose to use illicit services.

Illicit downloading has had a significant, negative impact on recorded music industry revenues, as discussed in Chapter 2. While this thesis is about legitimate services, it is nonetheless useful to have a basic understanding of the mindset of illicit downloaders, given that this segment of free music consumers could add value to the recorded music industry if transitioned to legitimate free services that compensate stakeholders (transitioning from one free platform to another).

With regard to academic literature related to ad-supported music download services, only three relevant papers were found. The first, by Fox and Wrenn (2001), outlines the concept (which they refer to as a "broadcasting model), and discusses potential methods of generating revenue. The second, by Papies et al. (2011), considers the notion of a legitimate free service and how the introduction of a free, ad-supported channel affects choice, by comparing free, ad-supported services against paid services. Papies et al. say that "no research empirically analyzes consumer reaction to the introduction of a free, ad-based download model and the implications an introduction may have on other download channels" (Papies et al. 2011:778). They make it clear, however, that their research is about "free alternatives" to paid downloading, rather than considering the situation of a legitimate free alternative to an illicit service (i.e. where the consumer will not pay at all), which this thesis is concerned with. The third paper (Rosenkrans 2009) is about online advertising, not music services, and explores newer online advertising formats such as video, but is concerned with examining its effectiveness as measured by click-throughs, rather than giving consideration to tolerance or attitudes.

3.4.1 Technology as an enabler

Technological improvements have facilitated easier illicit music exchanges and the ability for more people to share more music on a larger scale than ever before, at little cost. Where technology such as dial-up Internet modems used to be used to facilitate P2P exchanges (albeit at very slow speeds for the typical user), the introduction of increasingly higher-capacity broadband has facilitated the transfer of ever-increasing file sizes at ever-increasing speeds.

Levin et al. (2004) in their study which used a sample of university students in their early 20s, say that the extent to which people download is dependent on the technology available to them. Heavy illicit downloaders are more likely to have

high-speed Internet connections (Levin et al. 2004, Chu, Lu 2007), and Chu and Lu's study of the Taiwanese market found that familiarity with computer and Internet technology affects attitudes and perceptions about online services. As discussed in previous sections, the literature generally shows that those who are more familiar with and comfortable with online technology are less concerned with aspects such as ease of use and security.

While technology has certainly made piracy easier in many respects, it is interesting to consider the words of the late Steve Jobs, former CEO of Apple, who reportedly said when the iPod was launched that "Piracy is not a technological issue. It's a behavior issue" (Borland, Mariano 2001). Fox and Wrenn (2001:113) suggest the same by saying "it is the availability of free music, when combined with consumer attitudes towards stealing copyrighted music that is of most relevance. In short, an attitudinal change has accompanied the growth of the Internet".

3.4.2 Downloader profile by age and volume

Literature on music piracy tends to focus on youth and students (people under the age of 35). Studies from around the world have found that the majority of music downloading is done by this group (e.g. Freestone, Mitchell 2004, Levin et al. 2004, Department of Canadian Heritage 2006, Music Experience and Behaviour in Young People 2008, BPI 2011).

D'Astous et al. (2005), who did not specifically look at age in their research, suggest that the impact of age on intention to download illicitly is less important than attitudes toward music piracy. The age range of d'Astous et al.'s sample was 19 to 30 years old, so cannot really be considered comparative given that 19 to 30 year-olds already fall within the age range of the most active illicit downloading group.

D'Astous et al.'s suggestion is further refuted by a summary of main findings from a UK study (Music Experience and Behaviour in Young People 2008) which found that the propensity to download music illicitly is dependent on age, with most illicit downloaders in the UK falling within the 18 to 24 age group (see Figure 14).
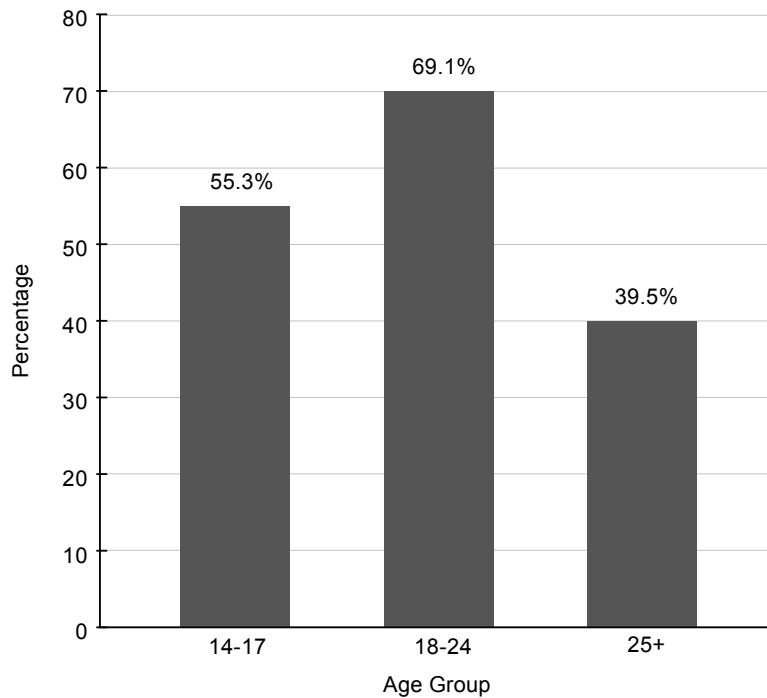
Figure 14: Breakdown of illicit music downloaders, by age group and percentage participating (data from Music Experience and Behaviour in Young People 2008:12)

In its reports on the music industry, the Department of Canadian Heritage (part of Canada's Ministry of Culture) found "Young Canadians aged 15 to 20 are driving the music industry, leading the way on music purchasing and listening over the Internet" (Department of Canadian Heritage 2006:13). A 2007 report by industry body CIRPA (the Canadian Independent Record Production Association, now called the Canadian Independent Music Association) refers to an Advertising.com study that found that 18 to 34 year-olds are heavy consumers of online music. The RIAA circa 2007 said that "According to some recent surveys, more than half of the nation's college students frequently download music and movies illegally from unlicensed P2P networks" (RIAA online). According to the University of Hertfordshire's and British Music Rights' study (Music Experience and Behaviour in Young People 2008:12), 14-17 year-olds are the heaviest illicit downloaders in terms of song volume, followed by 18 to 24 year-olds, though there are fewer people in that age group that download illicitly than 18 to 24 year-olds.

More recent studies also support these findings, showing that youth, students, the unemployed, and lower income consumers illicitly download music and software in greater numbers and more frequently than older, relatively wealthier

consumers (Nill et al. 2010, Chaipoopirutana, Combs 2011, Ho, Weinberg 2011, Moores, Esichaikul 2011, Aguiar, Martens 2013).

Figure 15 shows Canadian statistics for illicit music downloading, from Decima Research's 2005 Canadian Film and Music Opinion Study (Department of Canadian Heritage 2006:14). The graph shows that 15 to 34 year-olds were the most prolific downloaders of free music at the time.
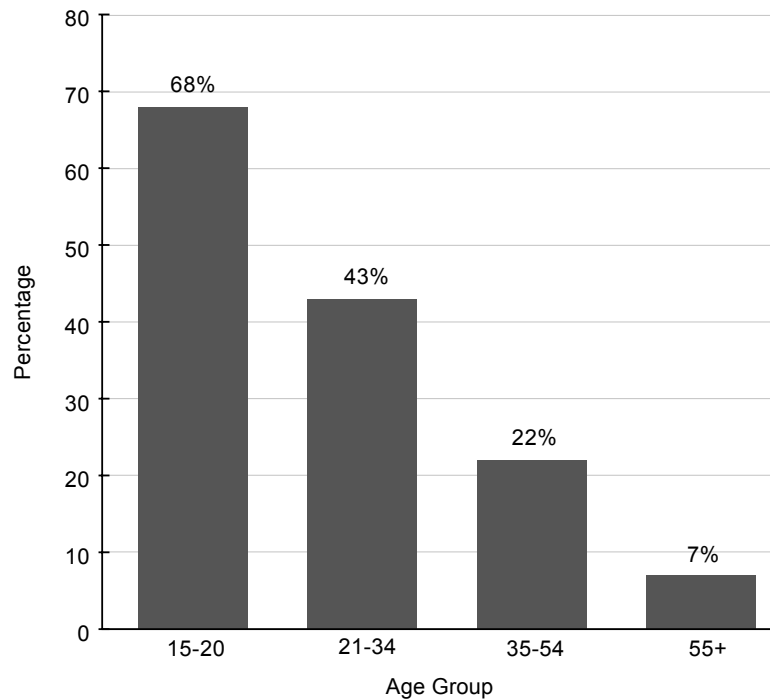
Figure 15: Downloading [Free] Music from the Internet. (data from 2005 Decima Research study in Department of Canadian Heritage 2006:14)

Figure 16 shows that this age-based trend has stayed consistent over the years, with a greater share of under-35s' total listening being taken up by both free and paid downloads, when compared with older consumers (BPI 2011), and under-35s still representing the largest group of illicit downloaders (BPI 2010). Figure 17 shows a breakdown of legitimate downloaders in the UK by age, and Figure 18 does the same for illicit downloaders. Table 10 shows a breakdown of paid and illicit downloaders in the UK by gender.

Males tend to illicitly download music and software in greater numbers and with more frequently than females, though there does not appear to be any significant

difference by gender for legitimate downloading (BPI 2010, Nill et al. 2010, Chaipoopirutana, Combs 2011, Moores, Esichaikul 2011, Aguiar, Martens 2013)
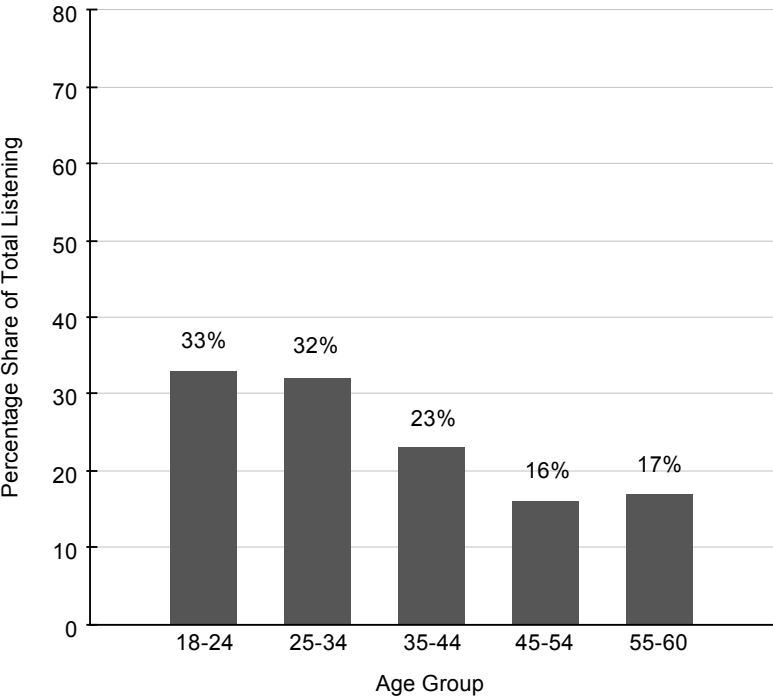
Figure 16: Percentage share of total listening represented by downloads (BPI 2011)
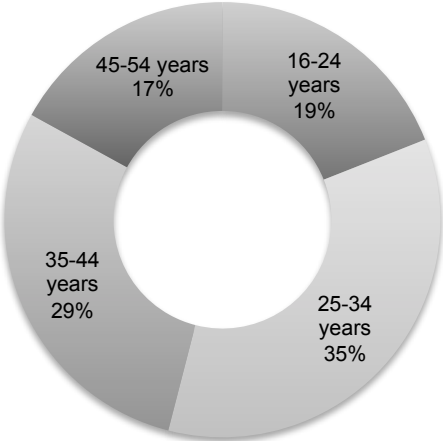
Figure 17: Breakdown of legitimate music downloaders in UK, by age group (BPI 2010)
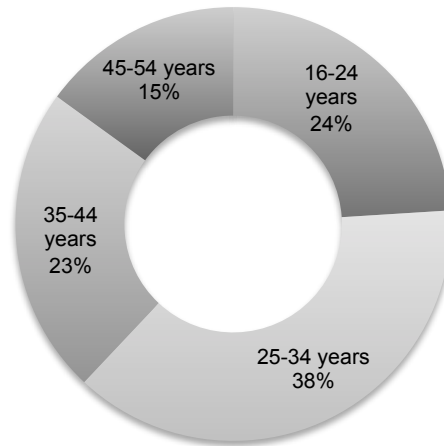
Figure 18: Breakdown of illicit music downloaders in UK, by age group (BPI 2010)

Type of Download	Male	Female
Illicit	60%	40%
Legitimate	53%	47%

Table 10: Breakdown of paid and illicit music downloaders in UK, by gender (BPI 2010)

Gladwell (2002) and d'Astous et al. (2005) mention that as young people get older, they have less concern about behaving ethically or morally. This appears to be somewhat of a moot point for over 35s, because today's older music consumers prefer radio and CDs to music downloads (Mulligan 2011).

Downloaders can generally be classified into three categories by volume: light, medium, and heavy. Though the academic literature examined varies in its description of what constitutes a light, medium, or heavy downloader, is only relative in nature, and does not broadly distinguish between illicit and legitimate classes, some indications from the literature are given here (summarized in Table 11).

Class	Songs Per Month
Light	Less than 20
Medium	20 to 80
Heavy	More than 80

Table 11: Approximate classifications of music downloaders, by monthly volume

Light downloaders tend to download only occasionally and download less than 5 tracks per week (Walsh et al. 2003, Kunze, Mai 2007). They are more likely to abide by legal norms, have stronger ethical views against illicit downloading, and have less interest in illicit services (Molteni, Ordanini 2002, Gopal et al. 2004, Cockrill, Goode 2012).

Medium downloaders typically download between 5 and 20 songs per week (e.g. McKenzie 2013).

The heaviest downloaders can download over 20 tracks per visit to a file sharing service, which can equate to up to 100 songs per day for some (Walsh et al. 2003). Heavy downloaders tend to be more comfortable with technology, and less likely to switch from the services they currently use to obtain their music. They are less likely to use "typical" paid services, (Kunze, Mai 2007), but when they do, they prefer subscription-based models (Walsh et al. 2003) because of the perceived utility/convenience related to their higher downloading volumes (in essence, an 'all you can eat' buffet versus pay-per-item).

In Walsh et al.'s survey of over 4000 Germans in their 20s, 57% of illicit downloaders classed themselves as regular or heavy downloaders.

3.4.3 Ethics

Illicit downloading is referred to in the majority of literature as 'illegal' downloading, even though the activity was not technically illegal in countries such as Canada, the USA, or the UK at the time of writing this thesis. It is actually the act of uploading files that has been illegal in some countries. Despite that, most consumers appear to think that illicit downloading is actually illegal, regardless of their ethical positions on the matter.

Muncey and Vitell (1992:298) describe consumer ethics as "the moral principles and standards that guide behaviour of individuals or groups as they obtain, use, and dispose of goods and services".

It would be useful to have an understanding of consumers' ethical attitudes as they relate to illicit and legitimate downloading, in order to investigate whether an

ad-supported service being legitimate is a key characteristic that would affect attitudes toward the service.

There are myriad theories and models on the ethical decision making process that differ slightly from one another. Given that this thesis is not on ethics or constructing an ethical model, but instead discusses ethics from the perspective of how it relates to illicit downloading choices, it was deemed more effective to discuss the topic based on core common elements identified across theories on the topic rather than providing an analysis of various theories or models.

Thus, there are four core aspects of ethical decision making that were identified in the literature (see Wilkes 1978, Ferrell and Gresham 1985, Jones 1991, Levin et al. 2004, Taylor 2004, Hunt, Vitell 2006, Siegfried, Ashley 2006):

- Recognition that an ethical judgment is required to be made

- An assessment of the consequences associated with potential courses of action

- Weighing any relationship with a victim, and acting more ethically toward those where a "favourable" relationship exists

- Engaging (or having the opportunity to engage) in the behaviour in question

Hunt and Vitell's General Theory of Marketing Ethics (1986), also known as the H-V model and revised in 1993 (see Hunt, Vitell 2006), is a well-regarded model for ethical decision making, and cited in studies on music piracy (Yoon 2011). The model, as described in Shang et al. (2008:350), suggests that "cultural environment, industrial environment, organizational environment, and personal experiences […] affect the ethical decision making process".

Shang et al. refer to the 1986 H-V model when they argue that a person's ethical judgments are not necessarily consistent with their behaviour and intentions, and are affected by deontological (one's feeling of ethical obligation to others) and teleological (concern about consequences) assessments.

A person's moral judgment is affected by his or her level of cognitive moral development. At a basic level, people focus on personal consequences; at the

next level they focus on conforming with society's norms and expectations, and at the highest level of moral development, decisions are made based on one's "overarching ethical principles" (see Hall, Rosson 2006:234). The highest level of ethical behaviour is one which society can "continuously strive" towards, though it might be unattainable. Basic ethical behaviour is behaviour that is acceptable because it is within "the letter of the law" strictly speaking, though it may not comply with the "spirit of the law" (Hall and Rosson 2006:233). By this measure, illicit downloaders, depending on the country and the laws therein, may be acting on a level of basic (though not morally ideal) ethical behaviour.

Holbrook (1994) defines ethical action as "doing something for the sake of others". Smith (1999) argues that there is value in ethics, which he describes as an other-oriented consumer value. He argues that ethics have a deontological value that often becomes evident through social norms.

The H-V model dictates that when a person's behaviour and intentions are not consistent with their ethical judgments, guilt will be a consequence. Studies (e.g. Levin et al. 2004, Lysonski, Durvasula 2008, Shang et al. 2008) have found that consumers have varying levels of guilt associated with their illicit downloading behaviour, which they assuage in different ways, for example, by reinforcing their beliefs that illicit downloading is not unethical, or by deflecting self-blame.

It is important to have a basic understanding of how ethics and attitudes influence the actions a person decides to take on a particular issue. For example, a person may choose to use a legitimate ad-supported music download service because it aligns more with his strong ethical views that downloading without compensating artists is wrong. Conversely, another person may not have strong ethical views about illicit downloading, or may not perceive it as wrong or unethical, and as a result may continue to illicitly download music rather than use a free legitimate service. As such, ethical views, particularly those related to norms, are explored in primary research, as this does not seem to be addressed in the literature.

3.4.4 Perceived acceptability

Freestone and Mitchell (2004:122) in their discussion of findings of generation theorists, say that as the external environment changes with generations, there are distinct changes in consumer behaviour.

In the literature reviewed on ethics and downloading, consumers do not endorse file sharing as ethical; instead, they tend to refer to illicit downloading behaviour as being 'not unethical' (Fox, Wrenn 2001, Lysonski, Durvasula 2008, Shang et al. 2008, McKenzie 2013). This is an important difference to note, as it implies that consumers recognize the ethical issues surrounding file sharing, but choose to align their attitudes and beliefs with their downloading activities.

Interestingly, comparing ethical self-concept with behaviour, Lysonski and Durvasula (2008) found that whether people considered themselves to be ethical had no bearing on their illicit downloading activities. They found that for illicit downloaders, ethical orientation does not influence future downloading intentions or behaviour. For example, a person who considers himself to be ethical could still be an avid illicit downloader.

Taylor (2004) refers to research from the 1960s, 1970s, and 1980s that found courses in ethics given to university students did not change students' unethical behaviours, and that most students were socialized (in terms of ethical views) long before they reached university, often by their families and sources of ethical influence outside of the traditional education environment (Taylor 2004, Lysonski, Durvasula 2008).

Freestone and Mitchell (2004) found that a person's perception of whether there is a victim of a particular ethically questionable behaviour is significant in terms of identifying the acceptability of an action. For example, subjects in their study clearly identified hacking as illegal and ethically wrong, but only 5% considered P2P downloading as wrong. Activities listed in their study that had a clear association with a victim were clearly identified by the study's subjects as illegal actions, and described as wrong or unethical. Activities that were unethical but not illegal (strictly speaking), and activities that did not appear to have clear victims, were found to be more acceptable to commit. Similarly, literature implies that the perceived distance from a victim bears influence (e.g. an acquaintance versus an individual stranger versus a large corporation).

Neutralization techniques, originally outlined by Sykes and Matza in 1957, are techniques that people can use to justify or excuse their questionable ethical behaviour. These techniques have been investigated by a variety of authors (e.g. Strutton et al. 1994, Freestone, Mitchell 2004, Shang et al. 2008), and are an

aspect present in literature on music piracy and ethics. The techniques include denial of responsibility, denial of injury to other(s), denial of a victim, "condemning the condemners", and "appealing to higher loyalties" (Strutton et al. 1994:254).

Wilkes' (1978) findings imply that consumers see ethically questionable acts as being more acceptable if they perceive the acts as not being overt or not causing harm to anyone (also see Levin et al. 2004), and Freestone and Mitchell say that youth often cannot "see the direct economic consequences of their actions" (2004:126).

Illicit downloaders may be more willing to engage in such ethically questionable behaviour in part because the behaviour is not overtly public (on display to others), and their belief that labels are making excessive profits, so the labels and the artists are not being harmed. This is supported by research by authors such as Wilkes (1978), Ang et al. (2001), Fox and Wrenn (2001), Freestone and Mitchell (2004), Helberger et al. (2004), d'Astous et al. (2005), and Lysonski and Durvasula (2008), who argue that anti-piracy arguments are not successful largely due to the perceived irony of wealthy, multi-millionaire artists being portrayed as victims pleading for consumers not to download their music for free because it diminishes income from their album sales. Nill et al. (2010) mention the same sort of attitudes are present with those who illicitly download or use pirated software. Lysonski and Durvasula (2008) found that even if students believed anti-piracy arguments to be true, this still would not influence their downloading habits. While one might assume that lesser-known independent artists receive more sympathy from illicit downloaders, there was little to indicate that such artists were spared from illicit downloading any more than well-known artists. Cockrill and Goode (2012:7) suggest that it would be more effective to run "campaigns that emphasise realistically the serious and harmful effects of piracy" rather than campaigns that tell people "downloading is stealing".

Not all people believe that illicit downloading is not unethical. There are some people, such as ethical idealists, who strongly believe that illicit downloading is wrong (Lysonski, Durvasula 2008), or at least that artists should be paid for their work (Music Experience and Behaviour in Young People 2008). As a result, these people do not download music illicitly or make their music available for sharing over P2P networks. These ethical idealists are accommodated in the theories mentioned previously in this section related to cognitive moral

development, which refer to "principled" and theoretically ideal levels of ethical behaviour.

Literature addressing ethics and norms suggests that consumers perceive little social risk associated with illicit downloading, because generally, they view the activity as not unethical, and see an increasing number of youth engaging in this behaviour.

Shang et al. (2008) argue that illicit downloading is seen as socially acceptable, and not unethical, because of the perceived lack of connection to a victim. The notion of depersonalization would seem to agree with findings that the more difficult it is for a person to perceive a victim, the more likely that person is to believe that it is ok to commit an ethically questionable act (Levin et al. 2004, Lysonski, Durvasula 2008). This suggests the involvement of more than subjective norms.

Any perceived social risk related to illicit downloading appears not to be related to one being ostracized from one's friends, but a consequence of legal risks, such as (for example) the social impact of being heavily fined impacting one's disposable income, and therefore one's social life.

The intangibility of music files could make it difficult for consumers to see the dividing line between what is morally acceptable and what is legally allowed (Fox, Wrenn 2001, Freestone, Mitchell 2004, Levin et al. 2004, Cooke 2006, Hall, Rosson 2006, BPI 2010, Chiu, Chou 2011). As Hall and Rosson say (2006:236), "it is not always clear where to draw the line regarding socially acceptable behaviour" when society is constantly evolving. Literature on ethics and illicit downloading implies that consumers know the difference between right and wrong, and when they see illicit downloading behaviour as wrong but wish to partake in it, their awareness of 'wrongness' is mitigated by the belief that their illicit behaviour is 'not unethical', and thereby acceptable by some measure they have defined for themselves.

Kelsen (1959:107) states that people "ought to behave" as norms prescribe, but they do not always do so. He suggests that simply instructing consumers to obey the law because it is the law is not a logical approach. D'Astous et al. (2005) make a speculative suggestion that anti-piracy efforts should be directed at

younger consumers, as such arguments might be more persuasive when targeted at a younger, perhaps more impressionable audience.

The literature on ethics and illicit downloading suggests that a free music download service being legitimate would not be enough on its own to attract users to it (with the exception of ethical idealists), and that other factors, such as those that relate to perceived value and service quality (see Section 3.2.2) are also important. This is investigated in primary research.

3.4.5 Norms and the law

Legal norms are behaviours that are prescribed, permitted, or formally authorized in society (Kelsen 1959:107). Kelsen describes two broad types of norms: "norms of thinking" (logical norms) and "norms of action" (moral, legal norms). This is an interesting way of classifying norms, as it gives further insight into the findings of authors (including Hall, Rosson 2006) who state that technology and social behaviour tend to evolve more quickly than the law.

What is considered by society to be morally right and what is actually legally allowed can sometimes be two very different things, because moral aspects are about the spirit of the law, and legal aspects are about the letter of the law (Hall, Rosson 2006). Unethical acts should not necessarily be made illegal, as laws may not be ethically sound, based on society's current views on morality (Hall, Rosson 2006). Hall and Rosson's review of academic literature on morality, ethics, and legality showed that many scholars have found that laws lag society's moral standards. Indeed, studies on illicit downloading in the UK and Taiwan have shown that some consumers are confused about what is and is not allowed under the law (Music Experience and Behaviour in Young People 2008, Brindley, Walker 2009, Chiu, Chou 2011).

In addition to the availability of enabling technology, the law and customs of a society can influence a person's expectation of access to content (Helberger et al. 2004, Chu, Lu 2007). For example, it is commonly said that in China, IT piracy has become a cultural norm (e.g. Pratt 2005). While developed countries such as Canada have faced criticism in the past for a lack of legislation against illicit downloading, Nill et al. (2010:131) note that developing countries suffering from very high software piracy rates, such as China and Russia, face a "multitude of legal, political and sociological problems" that make it difficult for them to

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effectively deal with piracy or affect any behavioural changes in the short to medium term.

The threat of legal action does not automatically change consumers' intentions or force them to use legitimate channels. Depoorter et al. (2005:362) found that when people perceive laws to be "aligned with social norms and ethical values, individuals tend to comply with the law even when it is not in their direct self-interest". However, when laws diverge from consumers' opinions, enforcing those laws "may trigger opposition and protest, which might reinforce underlying contrary social opinion".

In consideration of the 'carrot versus stick approach', there is still debate as to whether litigation is an effective deterrent of illicit downloading (Depoorter et al. 2005, Clement et al. 2012). Depoorter et al. (2005) in their review of literature discuss evidence that heavy-handed legal tactics can provoke backlash and rebellion against existing laws, and that when a law is in opposition to prevailing social norms, a gradual, more gentle approach could be more effective. The IFPI's 2012 global report on digital music shows evidence that in some countries (France and South Korea are examples given in the report), a warning system (e.g. 'three strikes') has resulted in a reduction in illicit downloading activities (IFPI 2012).

Knopper (2005, 2007a in Lysonski, Durvasula 2008) in articles for Rolling Stone magazine argues that legal action has made no significant difference in illicit downloading activity. However, some authors have found that the fear of punishment does have a negative influence on intention to download illicitly, and the more severe a punishment is perceived to be, the more likely it will curtail such downloading (e.g. d'Astous et al. 2005, Lysonski, Durvasula 2008, Music Experience and Behaviour in Young People 2008). Given these differing arguments, the literature addressing this issue appears conflicted at best.

Studies show that students are aware of the ethical issues surrounding illicit downloading, and that an ethical judgment is required (Levin et al. 2004, Taylor 2004, Siegfried, Ashley 2006). Consistent with other findings (e.g. Brindley, Walker 2009), Taylor's study concluded that university students feel that illicit downloading is "basically acceptable" and they do not consider the behaviour stealing because the music is "readily available on the internet". Siegfried and

Ashley (2006) suggest that "an illegal act is easier for a student to recognize than an unethical act".

This again suggests that a legitimate free music download service will need to offer more than simply being legitimate, and that a service's legitimacy may not be a key aspect affecting consumers' attitudes toward the service. An examination of literature on switching behaviour provides further insight into this issue (see Section 3.1.4).

3.5   Risk and uncertainty

Risk can be defined as "uncertainty" (Athearn 1971). Perceived or actual, it can be related to issues such as disappointment, cost, potential consequences, satisfaction, and trust (Bettman, Nakanishi 1973, Herbig, Kramer 1994). While authors in Athearn's paper (written for the American Insurance Association) refer to risk as being related to loss, "measurable uncertainty", and "unpredictability" (Athearn 1971:639), it would seem that uncertainty and unpredictability are the best contextual definitions for risk in this thesis. This judgement is based on literature about perceived risks of service usage mentioning, for example, social and psychological contexts. A reduction in risk therefore could equate to a reduction in uncertainty and/or unpredictability.

Though potential risk can be difficult to measure where no financial investment or tangible object is concerned, there are a number of risks or uncertainties that may be present in a consumer's mind when deciding to use either legitimate or illicit services. For example, risks related to legal consequences, financial consequences, loss of time, disappointment (because of value expectations, quality expectations, or satisfaction not being met), or computer viruses. These perceived risks and uncertainties may affect attitudes towards and evaluations of services, hence their introduction here.

The perceived risks and consequences of using illicit download services can be seen as forms of cost (Plouffe 2008). People determine the risk they are willing to take based in part on their judgement of an object's value (Walters 1978). They can also make decisions for self-serving reasons, based on the expected reward or punishment outcome, and aim to maximize reward and minimize cost in their exchanges (Thibault, Kelley 1959 in Gefen et al. 2003, Yoon 2011).

There is a great deal of literature on illicit downloading, less on legitimate paid downloading, and almost none directly addressing legitimate free downloading, particularly pertaining to perceived risks and consequences of such activities. Examining perceived risks and consequences of illicit downloading in secondary and primary research provides some insight into advantages downloaders see in using legitimate services and why people may or may not want to use them.

Many people who download illicitly do not think they will 'get caught' or be punished for their activities (Fox, Wrenn 2001, Harris 2007, Music Experience and Behaviour in Young People 2008, Brindley, Walker 2009, BPI 2010).

When there is no fear of punishment, people are more inclined to engage in inappropriate behaviour (Albers-Miller 1999, Gladwell 2002). Some of the world's key recorded music markets still have copyright laws that are weak, ambiguous, or non-existent in the context of digital media (d'Astous et al. 2005, Harris 2007, Nill et al. 2010), and in the absence of specific laws, personal norms tend to determine how a person behaves (Depoorter et al. 2005).

Freestone and Mitchell (2004) conducted a study that specifically examined attitudes towards "internet-related misbehaviours". They argue that people consider the Internet to be perceptually separate from the physical world, and that accordingly, the Internet has its own ethical culture. They also say, along with Shang et al.'s paper showing consensus from a number of authors (Shang et al. 2008), that the culture of the Internet is depersonalized, giving a sense of anonymity, invisibility, and immunity from consequences.

There are obvious consequences for criminal activity and theft in the physical world, such as being arrested and charged with theft, but illicitly downloading music tends to be perceived as an intangible, relatively victimless form of theft (Freestone, Mitchell 2004, Levin et al. 2004, Cooke 2006, Lysonski, Durvasula 2008), which is not technically illegal in many places. An example given by Lysonski and Durvasula is that students would not steal a CD from a store even if it was guaranteed they could get away with it, but the same students would be "somewhat likely" to "steal" the same CD as digital files over the Internet.

Governments and researchers alike have suggested that illicit downloaders might be more influenced by potential legal consequences if the consequences were more serious (Cooke 2006, Harris 2007). However, even with recent threats of

litigation against file sharers (most notably by the RIAA), relative to the American population, there are a miniscule number of people who have actually been charged with copyright infringement for illicit downloading in the USA. The average settlement reached in RIAA lawsuits has been approximately US$3,500 (Kravets 2009).

Though there have been some highly publicized legal cases against file sharers and services, such as the US$1.92 million judgment in June 2009 against Jammie Thomas in a suit brought forward by the RIAA (reduced to US$1.5 million in 2010, then US$54,000 in 2011), the SEK 30 million judgment against Swedish torrent site Pirate Bay in April 2009, and the on-going case against the online hosting service Megaupload, the Jammie Thomas case, which is not representative of the typical actions taken by the RIAA, was one of only two cases in the USA that went to trial instead of settling (Kravets 2009, BBC News 2012).

Depoorter et al. (2005:364) discuss the difficulty of influencing norms, saying that neither mild nor harsh penalties for illicit downloading encourage experienced file sharers to switch to legitimate channels. While this might seem counter-intuitive, they suggest this is due to the high cost of litigation limiting the number of people that can be prosecuted for file sharing, thereby reinforcing file sharing norms.

Litigation aside, other than the well-known risk of getting computer viruses from using illicit download services, there is apparently little literature on the nature of risk with respect to the usage of music download services, particularly legitimate ones. Kunze and Mai (2007) were the only authors found to have focused specifically on this area.

Kunze and Mai's research (2007) found that the five risk factors that "most strongly influenced" (paid) downloading decisions were sound quality, efficient and easy to use search tools, security of information, breadth of music catalogue, and unrestricted copying of downloaded songs – factors which are consistent with previously discussed literature on usage of music download services and determinants of service quality. They found that the least important perceived risks in the decision to use a service were "being part of an online community, opinions of friends and family, staying up-to-date with artist news", the ability to keep one's online music collection, and "staying abreast of the latest

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technologies" (p.869). They refer to the most important factors as being related to performance and time value, and the least important factors as "social and psychological", saying that "social and psychological risks are not considered important in influencing online music download decisions".

Some of these findings conflict with other literature. A University of Hertfordshire/British Music Rights study (Music Experience and Behaviour in Young People 2008) states that a majority of online music consumers prefer to be able to download and keep music files. Similarly, various authors have suggested relevant, up-to-date information about artists as a potentially valuable service feature (Walsh et al. 2003, Amberg, Schröder 2007). These differences may be due to the slightly different contexts of the studies carried out.

Consumers may not perceive being able to keep their music collection as a risk when they first sign up to a music service, however, if the service becomes unavailable and they lose access to their collections (e.g. if the service requires users to 'refresh' their music licenses periodically), it would be reasonable to assume that this would cause upset, given the time and effort that can be spent building and organizing music collections. When the free, ad-supported music download service SpiralFrog ceased operating, users lost the ability to play back their downloaded music 60 days later, because they could no longer use the service to refresh their rights. In 2008, Microsoft closed its MSN Music Store (which used their DRM tool Plays For Sure), and took the server associated with it offline, preventing users who purchased music from the service in 2006 or earlier from transferring the music they had bought to portable music players. Microsoft decided to keep the licensing servers online for a few years more after consumers voiced concerns, but Yahoo's music store did something similar in 2008, and closed for good. A workaround for consumers was to burn their tracks to CD, but this clearly impacts on the perceived value and quality of a service (e.g. technical reliability), even if only in hindsight.

Though Kunze and Mai (2007) looked at perceived risks in using paid music download services, many of the perceived risks they identified could be independent of a financial transaction taking place, and as such their findings have been used here in the context of unpaid services, by removing the factors they identified that were specific to paid ones. Also, since viruses were not

included in their perceived risk factors, that suggests that consumers expect that a legitimate service will be free from such issues.

It is important to note that Kunze and Mai (2007) examine factors (most of which could actually be called service characteristics) in the context of risk perception, where other studies do so mainly from a value perspective. For example, previously discussed literature suggests that consumers would like to stay up-to-date with news on artists (implying value in such functionality), which differs from Kunze and Mai's findings (2007) that say that a lack of artist news and information is not an important risk factor in choosing a service. This implies that there are service characteristics that could be valued, but at the same time not be considered important or key aspects of a service.

Consumers see the reduction of their dissatisfaction as a benefit (Park, Kim 2003), so risk mitigation and compensation strategies/factors are important to consider. Kunze and Mai's study (2007) examines "risk relief" strategies that consumers use to mitigate or compensate for the risks they face in their decision making. They found that the top strategies consumers employed (that applied to unpaid services) were: choosing a service that offered song previews, choosing a well-known brand as opposed to a "big" brand, and using a service that they saw others using. While Kunze and Mai (2007) found that consumers did not feel that choosing a service that had been advertised, or one that was attached to a big brand offered effective risk relief, literature on trust suggests that this feeling is dependent on an individual's comfort and experience in the online environment (e.g. Shankara et al. 2002, Ha 2004, Bart et al. 2005).

Although it was not explicitly stated in literature that consumers view DRM restrictions as a risk, it was clear in the literature that they viewed it as an inconvenience and consequence of using particular services (Helberger et al. 2004, Amberg, Schröder 2007). Amberg and Schröder's research found that consumers were less attracted to services that placed restrictions on how they could use content, which is in agreement with research by Dufft et al. (2005) and Fetscherin (2005). The findings in Helberger et al.'s report indicated that most consumers dislike DRM and "do not accept strong usage limitations" (2004:100).

It has been shown thus far that conceptually, there are service characteristics that are considered by consumers to be important (key or core service

characteristics), and others that consumers might value (or see as enhancing quality) but at the same time not consider to be important in their choice of a service. However, while current literature may address areas such as service quality dimensions, or list particular risk factors (e.g. Kunze and Mai's 2007 study), it lacks contextual discussion about why some aspects are seen as important and others not, nor is there any dynamic, deeper discussion about the effect that a service's (lack of) performance or ability/inability to meet expectations in these areas has on a person's attitude toward a service. While Kunze and Mai's study (2007) certainly provides more information on characteristics that may form part of a person's decision heuristics in choosing a paid music download service, it does not provide contextual insight into how attitudes toward a service are affected.

3.6   Research questions

This chapter has thus far introduced the concepts of perception, motivation, evaluation in the consumer decision making process, and how attitudes influence intentions and behaviour. The nature of online advertising and how it can affect attitudes was also explored, as was a guiding framework for online service quality, looking at how consumers evaluate online services, and the characteristics that are relevant to music download services. Illicit downloading and the role that ethics and norms play in the decision to download using a legitimate or illicit service was discussed, as were the concepts of risk and uncertainty, as they relate to both illicit and legitimate services.

In light of the aims of this research, this literature review has raised three main questions for exploration in primary research:

1. What characteristics make a music download service attractive to consumers, and which of these characteristics are most important in influencing such views?

2. How do these key characteristics and attitudes align contextually with consumer behaviour theories?

3. Could a legitimate free, ad-supported music download service be attractive enough to potentially achieve mainstream success?

Several secondary research questions were identified throughout the literature review:

- What constitutes perceived value, quality, utility, trustworthiness, convenience, ease of use, acceptable catalogue size, and an acceptable cost-benefit exchange for a free music download service?

- Is forced advertisement viewing in exchange for free music considered a fair exchange, and is that a conditional view?

- Are consumers opposed to DRM or forced advertising consumption on principle, even when legitimately getting music for free?

- Does the perceived nature of displayed advertising (e.g. irritating, entertaining, aesthetically pleasing, cluttered, untrustworthy) affect attitudes towards the service?

- Do ethical views about illicit downloading have any influence on the decision to use a legitimate free service (particularly for illicit downloaders)?

- How willing are downloaders to share their demographic or personally identifiable information with a legitimate service?

- Is a personalized service (e.g. profile, advertising, content recommendation) important, useful or valued?

- Is a sense of community within the service (i.e. online social interaction with other service users) important, useful or valued?

- How do downloaders react to negative experiences with download services (e.g. delays, viruses, technical problems)?

- Are there any motivations for or barriers to switching to a legitimate free service?

Section 3.7 discusses the approach to the development of a model to answer these research questions.

3.7   Approach to model development

The overall aim of this research is to develop an understanding of consumer behaviour as it relates to the potential acceptance of ad-supported music download services, constructing a conceptual model that outlines a research agenda in this area. To this end, and considering the research questions raised in Section 3.6, any model that is proposed must be able to take into account the key themes raised in this literature review. It must have scope for examining attitudes toward a behaviour, the influence of norms, perceived utility, and perceived ease of use, and it must be able to accept additional contextually appropriate constructs. The literature review suggests that the following factors most influence overall attitudes toward and intention to use a free, ad-supported music download service: music catalogue, features offered, convenience, and attitudes toward advertising.

As discussed in Section 3.1.6 , TAM (with a normative component) was selected as the basis for the development of a new context-specific model of key characteristics affecting consumer attitudes toward (the usage of) free legitimate ad-supported music download services.

Figure 19 shows the generic conceptual framework to be used as the basis for the development of a model in this thesis, and Table 12 provides justification for these constructs. Section 3.8 builds on the generic framework by adapting it for a free legitimate ad-supported music download service.
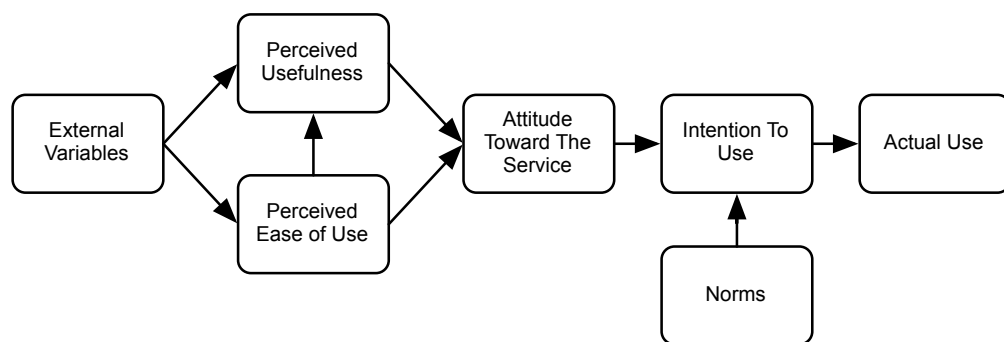
Figure 19: Generic conceptual framework used for model development in this thesis

Construct	Justification
External Variables	Fundamental aspect of TAM, influencing perceived usefulness and perceived ease of use (Davis 1985, Davis et al. 1989).
Perceived Usefulness	Fundamental aspect of TAM, influencing attitude (Davis 1985, Davis et al. 1989). While this construct has sometimes been shown to directly influence intention (Davis et al. 1989, Venkatesh, Davis 1996) and actual system use (Davis 1993), given the absence of a physical test system, this construct will be represented as only influencing attitude directly.
Perceived Ease of Use	Fundamental aspect of TAM, influencing attitude and perceived usefulness (Davis 1985, Davis et al. 1989). This construct was only shown as having a direct influence on intention by Venkatesh and Davis (1996), so its original conceptualization will be kept, where it only influences attitude and perceived usefulness directly.
Norms	Literature shows that norms may or may not be applicable in a given context, but tend to be relevant for situations that relate to ethical issues. As such, they will be represented as having a direct influence on intention to use a service, as outlined in TRA (Ajzen, Fishbein 1980).
Attitude Toward The Service	Attitude is at the core of this thesis and is a fundamental aspect of TRA and TAM, with the exception of its removal by Venkatesh and Davis (1996).
Intention To Use	Fundamental aspect of TRA. Included in some versions of TAM (Davis et al. 1989, Venkatesh, Davis 1996) and excluded in others (Davis 1985, Davis 1993). Given the subjectivity involved in the decision to use a particular music download service, attitudes may not in themselves be good predictors of actual behaviour, necessitating the inclusion of intention.

Table 12: Justification of constructs for the generic conceptual framework used for model development in this thesis

3.8   Initial model for first phase of primary research

This section outlines the changes/additions made to the model in Figure 19 to adapt it for a free legitimate ad-supported music download service. The initial model for testing in primary research is shown at the end of this section (Figure 20).

A large music catalogue, a convenient service, and a service offering a range of additional features beyond simply music downloading appeared to be key aspects of perceived service quality in the literature review, related to perceived utility. Search capability appeared to relate to perceived ease of use.

Davis et al. describe the complicated relationship between ease of use and perceived usefulness by saying that "ease of use may be an antecedent to usefulness, rather than a parallel, direct determinant of usage" (Davis et al. 1989:334). They suggest that in that sense, ease of use can be useful, for instance, by saving a user time, thereby increasing their productivity and the usefulness of a system. Search functionality could be considered a utility or an aspect that affects ease of use. Davis et al.'s explanation seems sufficient to justify including search capability as an aspect of ease of use (that implicitly affects perceived usefulness).

Davis (1993) found that a system's characteristics can directly influence a person's attitude toward the system. In the case of an ad-supported music download service, online advertising is a characteristic of the service. In this thesis, advertising is not hypothesized to have a tangible affect on perceived usefulness or ease of use because its presence would not seem to make a system easier to use, and it would seem from the literature that advertising typically has a more marked effect on attitudes than an actual impact on utility. The affect of advertising will therefore be accommodated in the form of a construct called 'attitude toward advertising', with a hypothesized direct influence on attitude toward the service.

Norms

Norms represent "personal values or rules of behaviour" (Hunt, Vitell 2006:3). They are contextually formed and modified based on a person's culture, environment, and reference groups. They can be informal at their lowest level ('folkways'), or develop into commonly accepted rules that may be legally enforced at their highest level ('mores') (Sumner 2002).

As shown in Table 13, subjective norms are not the only type of norm, and there are different conceptualizations that can be used, or different ways of 'carving up' the conceptualization of norms, so to speak. Norms can be injunctive,

descriptive, explicit, implicit, subjective, or personal (e.g. Ajzen, Fishbein 1980, Conner, Armitage 1998, Burnett, Bonnici 2003, Cialdini et al. 2006).

Type of Norm	Description
Injunctive	Behaviours that are perceived as being approved of or disapproved of by others
Descriptive	Perceptions of how other people are actually behaving, whether or not the behaviour is approved of
Explicit	Norms that are written or spoken of openly
Implicit	Unwritten rules (norms that are not openly stated)
Subjective	Pressure to comply with the behavioural expectations of valued others
Personal	Standards one has about one's own actions

Table 13: Different types of norms (e.g. Ajzen, Fishbein 1980, Conner, Armitage 1998, Burnett, Bonnici 2003, Cialdini et al. 2006, Straker n.d.).

TRA, TPB, and TAM2 use subjective norms exclusively for their normative components, however, researchers have pointed out that this may be inappropriate and insufficient for accurately predicting intent or behaviour, advising consideration of other types of norms that may be more relevant (e.g. Conner, Armitage 1998, Pool, Schwegler 2007, Smith, Louis 2008, Lee et al. 2009). For example, Levin et al. (2007) argue that music piracy is not a (subjective) norm simply because "everyone else is doing it", and the extent to which a person illicitly downloads also depends on one's ethical views (Levin et al. 2004, Lysonski, Durvasula 2008). People generally prefer to say that their norms reflect their personal views rather than what others expect of them (Lindskold, Bennett 1981). While a person's reference group may give behavioural cues, an individual may not feel pressured to comply with the group, because, for example, they may not be worried about being ostracized from the group due to non-compliance (Pool, Schwegler 2007).

Lee et al. (2009) suggest that the traditional concept of a subjective norm – pressure on a person to conform to those around them – is a weakness in predictive behavioural models, and that using norms that evolve from one's observations and perceptions of what others are doing (descriptive norms,

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injunctive norms), would be more accurate. In fact, some researchers have added additional norms (e.g. personal norms, descriptive norms) to TRA in order to provide a more descriptive picture of intention (Pool, Schwegler 2007).

With respect to the topic of illicit music and software downloading, authors such as Nill et al. (2010) and Woolley (2010) mention that subjective norms are not always appropriate to include in predictive behavioural models, either due to the culture of a country (e.g. individualistic rather than collectivist, where the emphasis is placed on what the individual wants, rather than the group), or simply because illicit downloading is seen by many people as "socially accepted", making subjective norms irrelevant (Woolley 2010:32). In such a case, these authors suggest that descriptive and injunctive norms are more appropriate, if norms are to be included in a model.

In ethical situations, people's intentions are often guided by their own standards and morals (d'Astous et al. 2005, Shang et al. 2008) rather than simply what valued others think. Lysonski and Durvasula (2008) found that individuals act within their own "ethical code" when they download illicitly, and another study (Music Experience and Behaviour in Young People 2008:16) suggests that consumers know right from wrong, but are aware of their actions and "are operating within a moral code, even though they are acting illegally".

While people who pay a lot of attention to their own behaviour may pay more attention to what others think of them (Debono, Omotto 1993), a person's motives toward a behaviour may not in fact be 'other-directed' in any significant or explicit way (Levin et al. 2007, Pool, Schwegler 2007). TRA lacks a consideration of the influence of people's "internal moral rules" (d'Astous et al. 2005:294), and Ajzen (1991) acknowledges that the inclusion of personal norms and a sense of moral obligation could increase the predictive power of TPB for unethical behaviours.

Current social opinions seem to indicate that music file sharing is becoming an accepted social activity in today's society. Hall and Rosson (2006) found that the value placed on an activity by cultural norms contributes to its legitimacy in society, and Shang et al. (2008) argue that normative systems are flexible, and that people who take part in behaviour that is not entirely consistent with their

own ethical views can mitigate their dissonance by deciding that existing norms do not apply in particular situations.

While the models outlined in this thesis are not concerned with illicit downloading, consumers may have some sort of ethical inclination to use a legitimate free service instead of an illicit one, based on their personal standards and morals, warranting the inclusion of norms in the initial model for testing. However, Hall and Rosson's and Shang et al.'s findings suggest that norms of any sort may in fact be irrelevant, even though ethical considerations appear to be involved.

Based on the discussion thus far, it has been decided that the normative component of the initial model for testing should consist of injunctive norms, personal norms, and explicit norms, as they appear to be more directly relevant to music downloading activity.

The conceptual model outlined in Figure 20 (Harris 2010) has been used as an initial framework for primary research. The model's constructs are outlined in Table 14. The initial hypotheses are simply the proposed relationships themselves, at a basic level, because the model illustrates the relationships to be probed in the qualitative primary research phase, to enable the gathering of contextual information upon which to refine the model and develop specific hypotheses.
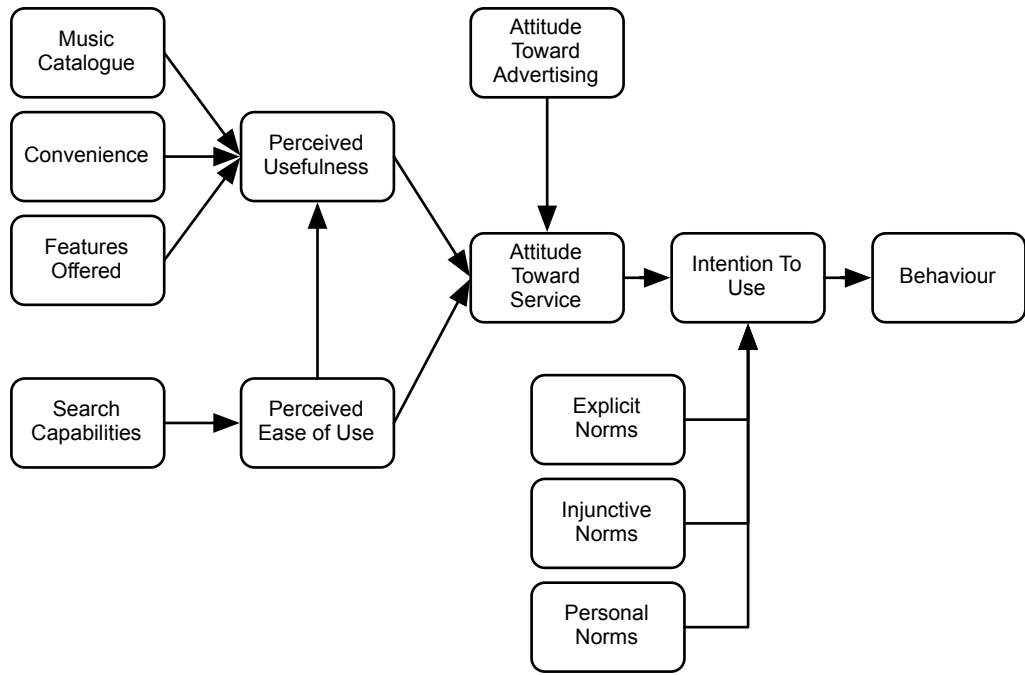
Figure 20: Proposed model for the acceptance and use of a free, ad-supported online music download service (Harris 2010)

Construct	Definition
Attitude Toward The Service	The attitude a consumer holds about using the service
Attitude Toward Advertising	The attitude a consumer holds about the advertising that is presented as a condition of using the service
Convenience	The level of convenience the service offers the consumer as compared with alternatives
Explicit Norms	Norms that are written or spoken of openly
Features Offered	Features and services (utility) offered by the service
Injunctive Norms	Behaviours which are perceived as being approved/disapproved of by others
Intention To Use	A consumer's intention to use or not use the service
Music Catalogue	The degree to which the service offers music that the consumer is looking for
Perceived Ease of Use	The degree of ease a consumer associates with the use of the service
Perceived Usefulness	The degree to which a consumer believes that using the service will help him achieve his goals
Personal Norms	One's standards about one's own actions
Search Capabilities	The ability for a consumer to efficiently and effectively conduct a search for desired content

Table 14: Construct definitions for the proposed model for the acceptance and use of a free, ad-supported online music download service

3.9   Approach to model refinement

The model proposed in Figure 20 served as a starting point for primary research. It was intended that the model would be refined over the course of the research stages, to better define some of its more generic constructs such as 'convenience' and 'features offered'. Readers should refer to Chapter 4 and Chapter 5 for information on methodology, refinements during the primary research stages, and the overall research findings, and Chapter 6 for a discussion of those findings.

3.10   Summary

The first three chapters of this thesis have provided an overview and contextualization of core themes relevant to consumers' attitudes toward free, ad-supported music download services. The literature review has discussed relevant theories in order to facilitate the development of a conceptual model that is

academically underpinned. From this literature review, an initial model has been proposed for investigation in primary research, providing the basis for a topic guide for group interviews. In particular, the model adapts and extends TAM so that it can be applied to a free music download service with forced advertising display, which has not been done before.

A consumer does not typically evaluate a service on one aspect alone. Multiple, weighted criteria are used, and these vary from person to person. In the case of this study, these key criteria appear to be a large music catalogue, a convenient service, a range of features offered, efficient and effective search capability within the service, and the nature of displayed advertising.

The literature review has shown that there is a key gap pertaining to ad-supported music download services. There is a distinct lack of literature related to consumer expectations of music download services (generally, but especially for free services), and there is also very little literature available addressing tolerance of online advertising formats (especially newer formats), from either an empirical or conceptual approach. These gaps further support the justification for this research, and the original contributions to consumer behaviour literature that this thesis makes.

Figure 21 outlines the progression of the model from Chapter 4 onward, starting from the draft topic guide and preliminary interviews, outlining the methodological approach for the primary research exercise. Chapters 5 and 6 outline and discuss the primary research findings and revisions to the model.

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┌─────────────────────────┐
│     Draft Topic Guide     │
└─────────────────────────┘
            │
            ▼
┌─────────────────────────┐
│       Preliminary         │
│        Interviews         │
└─────────────────────────┘
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│     Final Topic Guide     │
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│    Inductive/Deductive    │
│         Analysis          │
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└─────────────────────────┘
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│      Survey Questions     │
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│        Final Model        │
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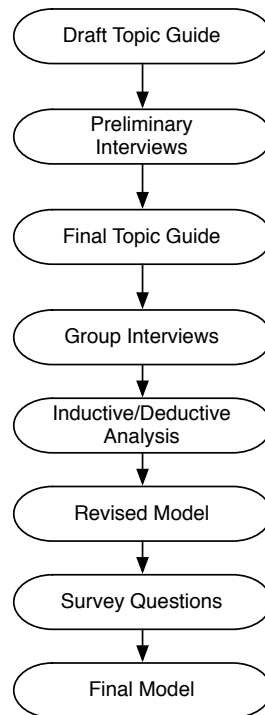
Figure 21: Progression of research from Chapter 4 onward

Chapter 4: Methodology

This thesis covers a new area for academic research, and has exposed gaps in the literature for addressing via the model proposed at the end of Chapter 3. It is therefore necessary to develop a methodology that allows for appropriate probing of topics from the literature review, to confirm, refine and validate the initial model. A combination of qualitative and quantitative research has been used to achieve this, as illustrated in Figure 22.

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┌─────────────────────────────────┐
│          INITIAL MODEL          │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│   Qualitative Primary Research  │
│           (INDUCTIVE)           │
│                                 │
│    Asking people about how they │
│  behave and why, to understand  │
│     their perceptions,          │
│     motivations, and            │
│         attitudes               │
│                                 │
│  preliminary individual         │
│         interviews              │
│        group interviews         │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│          REVISED MODEL          │
└─────────────────────────────────┘
                │
                ▼
┌─────────────────────────────────┐
│   Quantitative Primary Research │
│           (DEDUCTIVE)           │
│                                 │
│  Asking people about the        │
│  magnitude/degree of their      │
│  attitudes and opinions, to     │
│  understand their relative      │
│  value and importance           │
│                                 │
│         online survey           │
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│          FINAL MODEL            │
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Figure 22: Qualitative research phases in this thesis

This chapter describes the mixed methods strategy employed, and outlines the research design, sample, data collection and data analysis methods used. It also discusses the limitations of primary research and how these were addressed.

4.1 Evaluation of secondary research materials

Secondary research has been used in this study to identify appropriate theories and models for consideration, and to form a contextualized foundation and initial framework for use in primary research. The materials considered include academic articles, news reports, trade association reports, textbooks, conference proceedings, and in a few select cases, online publications.

There are many factors that need to be considered when evaluating the quality of secondary research materials. These include reliability, relevance, currency (current), accuracy, comparability with other studies, bias, research methodology and design, and general robustness of the research.

The geographic relevance of secondary material can also be an important consideration. Though music downloading (illicit or otherwise) is more rampant in some countries than others, it is nonetheless a global phenomenon, which justifies the inclusion of studies from countries such as Germany, Taiwan, and Hong Kong in the literature review, particularly given the limited academic research available on this topic covering Canada, the USA, and the UK. The influence of cultural differences (e.g. level of technology available, legislation, broadband penetration) must be considered when including such studies, as they can impact consumer behaviour to varying extents (e.g. Levin et al. 2004, Depoorter et al. 2005, Chu, Lu 2007).

4.1.1 Limitations of secondary research

Most published academic material on online music services focuses on music piracy or digital supply chains, and in the case of online advertising formats, the literature does not include new formats such as video or audio. Three relevant papers were found, but each had shortcomings. Fox and Wrenn's paper (2001) outlines the ad-supported concept, but is focused on a discussion of potential methods for generating revenue. Papies et al.'s paper (2011) considers the notion of a legitimate free service by comparing free, ad-supported services against paid services, and how the introduction of a free, ad-supported channel affects choice, but they do not consider the situation of a legitimate free alternative to an illicit free service (i.e. where the consumer will not pay). Rosenkrans (2009) wrote a paper on online advertising that explores newer

online advertising formats such as video, but it examines the effectiveness of advertising via click-throughs, rather than tolerance or attitudes.

The literature review showed that there are gaps in the body of literature as follows:

1. A lack of academic research on ad-supported music download services;

2. A lack of academic research covering consumer expectations of music download services (whether legitimate or not, paid or not). Very little literature exists on specific features that consumers value in music download services, and the literature that does exist does little to address the extent of such perceived value;

3. A lack of academic research specifically addressing consumers' tolerance of particular online advertising formats (especially newer types, e.g. video, audio).

The gaps in the literature illustrate that this topic is original and worthy of research. They also provide a direction for primary research, and potential topics for future research.

Currency was an issue to consider, particularly with literature on online advertising, as most of it is focused on legacy formats. Crouch and Housden (2003:42) argue that even if the secondary research being explored is less recent, it can be used as a "basis for comparison" with newer research, and can aid in the identification of trends or explanations of differences in data. Historical information can also provide context and insight into consumer behaviour, mitigating the currency issue to some extent.

When examining non-academic sources of material, it is important to consider that the opinions of music consumers and industry members can be highly subjective, biased, and change frequently. Academic sources of material can be similarly subject to bias, although such material generally is peer reviewed and based on theoretical underpinning (as opposed to opinions or observations alone) and thus tends to be more tempered in nature.

4.2   Primary research methods

One basic way of describing the difference between qualitative and quantitative research is that qualitative research "identifies the presence or absence of something" and quantitative research "involves measuring the degree to which some feature is present" (Kirk, Miller 1986:9). Dures et al. define the differences between these two methodologies as "text and pictures as data" versus "numbers as data" (Dures et al. 2011:333).

The methods chosen for the primary research stages in this thesis each reflect a particular methodology and epistemology. While this thesis is exploratory in that it seeks to understand what attitudes music downloaders hold and why, it also seeks to understand the extent of importance of those attitudes.

An interpretivist epistemology is typically used for exploratory research, and research questions that seek to gain insight and understanding by asking questions such as 'why'. A positivist epistemology is typically used for research that quantifies by observation, testing existing theories or hypotheses by asking 'how many' or who'. It was thus determined that mixed methods would be most appropriate for this thesis, because this research seeks to explore and also to measure (see Figure 23).
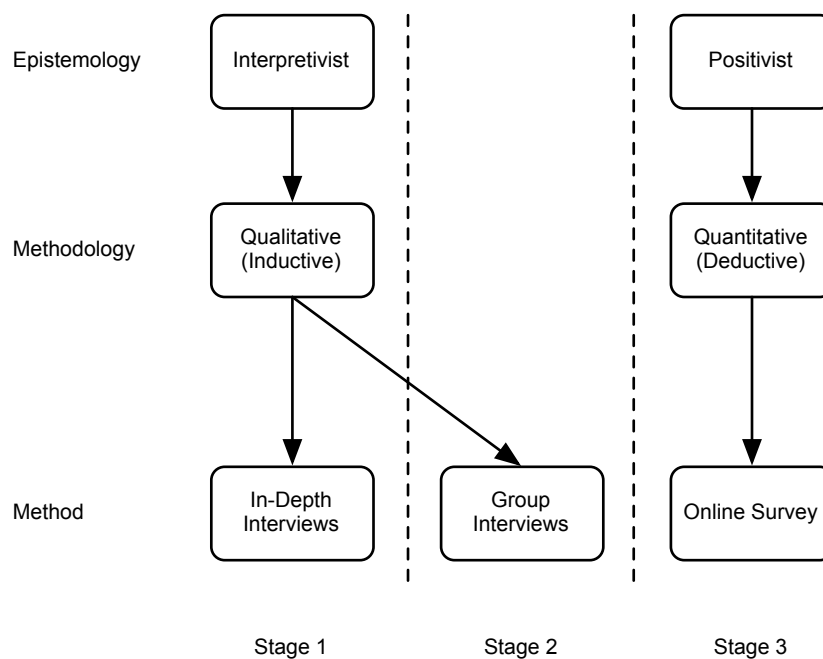
Figure 23: Method versus research stage

Mixed methods (inductive and deductive) were used sequentially in this thesis, complementing each other by providing appropriate breadth, depth, and corroboration via triangulation, consistent with the pragmatic approach taken towards answering the research questions.

Research in social science typically employs mixed methods as a pragmatic approach used in part to mitigate weaknesses of any one method used (Jick 1979), though many researchers neglect to mention why they have chosen to use a combination of methods in their studies (Dures et al. 2011). Mixed methods strategies have been used by researchers exploring attitudes, perceptions, and behaviours related to music downloading, in order to provide additional context for the development of online questionnaires (e.g. Freestone, Mitchell 2004, Levin et al. 2004, Kunze, Mai 2007), to provide richer context for analysis (e.g. Levin et al. 2004), and to validate findings (Zellman et al. 2010).

While mixed methods approaches are often used in social science disciplines, they are not always necessary or appropriate. Many papers referenced in the literature review used only quantitative research, implying that it is for the researcher to determine appropriate methods based on the research goals and level of context required. Indeed, much of the literature on mixed methods states that method selection should be determined by the aims and objectives of the research being carried out, imploring that a mixed methods approach be used with justification rather than as a perceived methodological insurance policy. In essence, there must be some reasoned, beneficial purpose for using this strategy (Jarratt 1996).

There are methodological purists who argue from a philosophical standpoint that using a combination of methods reduces the purity and efficacy of either when used together, and that the use of mixed methods can create a philosophical conflict at the epistemological level because of the difficulty in equating one measurement school of thought to another. This concept, incommensurability, argues against the validity of methodological triangulation, and has some staunch proponents (see Hoyningen-Huhne 1990, Jackson, Carter 1991 for key arguments).

Incommensurability in essence argues that combining methods reduces their individual efficacy because of issues to do with a lack of a common standard of

measurement, and difficulty in equating results arrived at between two different methods. In other words, the results from a single method with an understood measurement framework can become less pure when merged with the results from a different method with its own, separate measurement framework.

Incommensurability is not only a "philosophical problem" in research (Hoyningen-Huhne 1990:482), but also a political one, because different researchers' specialties or deep-rooted perspectives can have an effect on perceived power, prestige, or one's ability to understand other approaches (MacCleave 2006). MacCleave (2006:40) summarizes the problem thus, saying "different disciplines have their own way of doing things […] and different specialized languages […] Some of these differences might be incommensurable; in other words, one discipline's research traditions, practices, and languages cannot be understood or explained in terms of the research traditions, practices, and languages of another discipline without considerable distortion, incoherence, or confusion". Jarratt (1996) suggests that some researchers even consider mixed methods within a single discipline as incommensurable.

While incommensurability is an understandable argument, there are a number of researchers who argue that the potential benefits of using mixed methods, and the additional insight this strategy can bring, can outweigh its risks and weaknesses (e.g. Jarratt 1996, Mingers 2001, MacCleave 2006). Pragmatists argue that mixed methods are appropriate for use and even preferred over single methods when they can be justified as necessary and/or complementary in order to answer research questions and objectives (Johnson, Onwuegbuzie 2004). Indeed, it seems the more common view amongst researchers is to acknowledge that complications can arise when collaborating across different disciplines or using different methods within a discipline, but where mixed methods are justifiable, it is better to proceed with the research and define a framework for translation/equivalency than to abandon the research altogether or limit the ability to gain additional insight using mixed methods.

While both sides appear to have justifiable arguments, it seems that while mixing methods does come with risks, it can offer a pragmatic way to answer complex research questions, and potentially an opportunity to develop new knowledge and stretch intellectual debate by its very nature. Nonetheless, based on the arguments outlined previously in this section, it is important that this strategy is

justifiable for any piece of research in which it is employed (i.e. it should be complementary rather than arbitrary), and that care is taken to sensibly equate/combine the results from each particular method to reinforce the other and mitigate any weaknesses that arise out of such a combination.

A mixed methods strategy was considered most appropriate for this thesis. Given the lack of literature directly related to the topic of study, it was necessary to gain a greater understanding of consumer attitudes, opinions, and motivations, in order to develop a theoretical framework that could then be quantitatively tested. The literature review alone did not provide enough insight to conduct a purely quantitative study, and qualitative data alone would not be able to fulfil the research objectives; for example, qualitative data could not quantify the importance/value of particular service characteristics, or the strength of attitudes toward online advertising.

In this thesis, mixed methods are used to complement each other, providing additional insight and corroboration for each stage of the research process, and building on the data collected throughout each stage in order to develop a more comprehensive view. Qualitative research builds on the literature review, adding context and filling in gaps, and allowing for revisions to the initial model to be made accordingly. Quantitative research builds on this by confirming the strength of the findings from the previous two stages, providing an additional level of information for analysis. It has also been made clear in this thesis how the methods are intended to complement each other, which is something that some researchers say is typically absent in studies using mixed methods. This approach has been approved of and used by researchers with success (see Jick 1979, Jarratt 1996 for examples).

Dures et al. (2011) refer to their use of a mixed methods approach for similar reasons in their study on health psychology, making reference to their research objectives of identifying the nature and range of subjects' experiences, and noting that for their research, the use of qualitative and quantitative methods together was complementary in terms of the analysis of the data collected. They also faced large gaps in the literature on their research topic, and found the ability to focus on specific variables and work with a larger sample in the quantitative phase was made possible by the contextual data gained from the qualitative phase.

A variety of methods were used to meet the objectives of this research, including interviews and an online survey. This was done in order to validate and provide a richer context for the literature review findings, provide a basis for an online survey, and to refine, test, and validate a new framework. Preliminary interviews were used to refine a topic guide for group interviews. The group interviews were used to explore participants' attitudes and opinions, provide additional insight into the literature review's findings, and to attempt to fill in gaps in the literature where possible. This information was used to refine the initial model developed in the literature review, develop hypotheses, and provide a basis for questions in the online survey. An online survey was used to test the strength of attitudes in order to validate the refined model and test the hypotheses that emerged from the group interviews.

It is important to note that this thesis does not blend epistemologies. A sequential mixed methods approach was used, and each method at each stage of the primary research stayed true to its school of methodology and associated epistemology.

4.3   Qualitative research

Qualitative methods are most useful in situations where the researcher needs to gain an in-depth understanding of attitudes, beliefs, opinions, and motivations. Qualitative techniques include observation, experimentation, questionnaires, and interviews (including focus groups and group interviews) (Chisnall 1991). In this study, qualitative research has been used to supplement the literature review by enabling the researcher to identify and explore attitudes and motivations related to the research question and objectives.

For this particular study, there are no behaviours to be observed (i.e. observing actual use of services), and no experiments to conduct. While questionnaires and interviews were both considered, interviews and group interviews were preferred because they are more flexible than questionnaires in terms of providing an opportunity to probe and obtain a greater breadth and depth of data. The aim of the qualitative exercise was to provide contextual understanding by discovering what people do (how they behave) and why, how important/useful/valuable aspects of music download services were to them and why, and their general beliefs, motivations, and attitudes towards characteristics of music download services. Interviews allow two-way, dynamic communication between the

interviewer and subjects, making interviews an ideal technique for use in this case.

The decision about whether to use interviews or group interviews should be based on the type and depth of information to be gathered (e.g. specificity, sensitivity), as well as available resources, and it is up to the researcher to determine which technique is most appropriate for use given the research objectives. In the case of this research, individual interviews were used to inform the topic guide for group interviews, and group interviews were used as a valid and efficient way to explore attitudes, opinions, and motivations related to music downloading and online advertising.

4.3.1 Preliminary interviews

The purpose of the preliminary interviews was to refine the topic guide in preparation for group interviews. The data collected from the preliminary interviews related to question wording, specifically, what needed revising or re-wording, and what questions needed to be added or removed from the group interview topic guide (see Appendix A). The preliminary interviews were not used to contribute data on the type of services studied.

In-depth interviews were a logical starting point for this primary research exercise. Rather than simply ensuring that the questions in the draft group interview topic guide were understood by participants, it was important to ensure that the topic guide was comprehensive enough, hence the benefit of the one-on-one interview format.

Semi-structured interviews were used to probe aspects of the literature, and to identify additional areas for inclusion in the group interview topic guide that may not have surfaced in secondary research. This technique was chosen over pilot group interviews because a one-on-one setting permits the opportunity to probe individual attitudes and motivations in more depth than a group interview, and allows the researcher to better understand the nature of differences that may exist between subjects, e.g. differences in attitudes and behaviours based on age.

Jarratt (1996) conducted interesting research comparing semi-structured and unstructured interviews, in terms of how the findings from each type of interview could contribute to the construction of a subsequent survey. Supporting the

argument that methodological triangulation can be an effective, complementary technique, her experiment consisted of a literature review, followed by semi-structured and unstructured interviews, and an online survey. Semi-structured interviews were used for one research exercise and unstructured interviews for another, so that any differences between the two methods could be highlighted. Both exercises were related to the topic of shopping behaviour.

According to Jarratt (1996:13), the semi-structured interview "provides breadth of information, confirming and extending current knowledge and assists in the development of constructs for further testing, but without putting the researcher in touch with real emotions and detailed understanding of experiences by consumers". She refers to the unstructured interview as providing "in-depth understanding of experiences, but not necessarily touching on the broad range of issues that may have an influencing role in the consumer decision process and behaviour"

Overall, Jarratt (1996) found that both techniques were able to probe effectively the literature she reviewed, and both techniques yielded data that was consistent with each other. She did not explicitly say that one technique was better than another, nor find either technique to be materially deficient in a mixed methods research exercise, instead showing the general benefits and limitations of each.

In the case of this research, the individual and group interviews were used to validate the literature review, aiming to confirm and extend the literature, rather than explore consumers' detailed emotions, which favours the semi-structured approach. Indeed, Jarratt found that some new themes were revealed in semi-structured interviews that were not present in the literature, confirming this is an adequate technique for exploratory research.

Guest et al. (2006) recommend that for a relatively straightforward research question seeking information from a relatively homogenous group via structured or semi-structured interviews, 12 interviews can be sufficient. They suggest that in this type of scenario, data saturation can be reached by that point, with their findings showing that key themes can emerge after as few as 6 interviews. However, they note that "if one wishes to determine how two or more groups differ along a given dimension" or "to measure the degree of association between two or more variables", then a larger sample would be required (p.76).

12 consumer interviews were conducted in late 2009 and early 2010 covering different age groups (from 16 to 65 years old) with backgrounds including high school students, unemployed, post-secondary students, recent post-secondary graduates, professionals, and a retiree. These were a mix of telephone and face-to-face, based on the geographic location of the participants.

It is important to note that the interviews were conducted to refine the topic guide for the group interviews, and were purely to inform research design, not to collect primary data. Accordingly, a convenience sample was used, and pursued until it was clear that no additional changes needed to be made to the group interview topic guide. The data from these preliminary interviews is not included in the primary research data analysis in this thesis.

As a result of the interviews, a number of additions were made to the group interview topic guide.

The preliminary interviews asked people how they searched for music, with the assumption that they by and large used download services knowing what music they were looking for. The interviewees discussed their behaviour in this regard, revealing that music discovery features and/or functionality on a service were a relevant and useful feature. This led to the probing of the importance and value of recommendation features in Part 3 of the group interview topic guide. Part 1 was also updated to ask where and how participants typically listened to music, to understand what devices they listened on, and how DRM might affect their ability to use their music files in the way they would like.

It was evident from the preliminary interviews that it was not simply the presence or overt intrusiveness of advertising (e.g. via pop-ups or clutter) that affected attitudes, but that the duration of advertising was important to ask about in more detail, to assess thresholds for ad tolerance. This was incorporated into parts 5 and 6 of the group interview topic guide, which asked participants what constituted too much advertising on a website or service, and what they would personally consider to be a reasonable forced wait time. Participants also mentioned some existing ad formats and placements that they found acceptable, so a question was added to Part 6 to ask the user what ads (e.g. type, placement, duration, content, product or service types) they would prefer to see

on a service, if the service had to have advertising. This included asking whether in-song ads voiced by artists would be acceptable.

The preliminary interviews also revealed that there are different types of advertisements that are perceived as potentially suspicious, including quizzes, polls, games, and prize offers, and that the perception of suspicious advertising is not limited only to poor production values or irrelevant/inappropriate subjects, products, or services. Additionally, the interviews revealed that some people interacted with questionable ads for entertainment value, while others avoided them. This was incorporated into Part 5 of the topic guide.

It also become evident that not all participants knew what DRM was, so in Part 1, a question was added to ask if participants knew what DRM was, and if so, what their understanding of it was. This also influenced the question wording in the online survey, which, rather than mentioning 'DRM', used an explanation of it, to ensure understanding. This enabled the survey to test DRM's impact/influence on users in a way that would not skew results due to misunderstanding of the term.

Some participants said that they would not have a problem with a free service that included tracking technology or watermarking as part of the service or as part of the DRM attached to songs, but others said they would have a problem with this. It was therefore important to ask group interview participants how important clear disclosure was (i.e. a service telling users what tracking will be installed and how collected data will be used), and whether they read user agreements (i.e. terms of use) in the first place. This was added to Part 2 of the topic guide.

Some interviewees mentioned the importance of being able to easily manage their digital music collections, so a question about metadata was added to Part 3 of the topic guide.

Given that a convenience sample was used, typical criticisms of telephone interviews, such as lower response rates or sample bias (due to some people not having access to a phone) were not applicable. Nonetheless, it is worth briefly discussing what literature says on the main merits and drawbacks of face-to-face versus telephone interviews.

Overall, it seems that the appropriateness of telephone versus face-to-face interviews depends predominantly on the complexity and sensitivity of the issue being discussed (Columbotos 1969, Fenig et al.1993, Bonnell, Le Nir 1998, Sturges, Hanrahan 2004), with the gap between the two methods becoming wider for increasingly sensitive research topics and questions.

With respect to the quality and validity of data collected from telephone versus face-to-face methods, Fenig et al. (1993:896) suggest that "the partial anonymity granted by the telephone may increase the validity of responses by reducing the embarrassment involved in responding to emotionally or socially loaded questions in face-to-face situations". Columbotos (1969) found that some people may give more "socially desirable" answers in person, or withhold information in person that they would divulge in a phone or mail interview, particularly for questions addressing behaviours or attitudes that would not be considered in line with mainstream social opinions. However, while he found this to be an issue with face-to-face interviews, he notes that it was not statistically significant. Aquilino (1992) mentions that some respondents can be just as sensitive or reluctant over the phone.

Telephone interviews can offer an added level of discretion and convenience to respondents (Sturges, Hanrahan 2004, Holt 2010). Respondents may be more able to choose a comfortable, convenient, and private setting for their phone interview, and reschedule if needed because of the lower overheads involved compared with face-to-face interviews. However, cost to the respondent is an issue for researchers to consider – while the respondent might not incur travel costs to attend such an interview, costs may be incurred depending on the phone line used (e.g. in some countries, mobile phone users must pay for incoming calls).

Researchers have noted that to maintain the quality and validity of telephone interviews, it is important to keep questions and answer choices simple and easy to understand. Typical telephone interviews lack visual cues (such as a survey sent in advance for reference), so it is important not to confuse or overload the memory of respondents (Columbotos 1969, Aquilino 1992, Bonnell, Le Nir 1998, Sturges, Hanrahan 2004), particularly when the interviewer is unable to use visual cues such as body language as a gauge. On this note, Columbotos (1969) suggests that phone interviews can be appropriate for straightforward questions

on thoughts and behaviours, but for more complex endeavours, face-to-face interviews would be the more appropriate method.

In addition to attending (and asking questions at) keynote and panel discussions at industry conferences where ad-supported services were discussed (including senior executive representation from RCRD LBL, Napster, Pandora, and Guvera), five unstructured face-to-face interviews (Saunders et al. 2009) were conducted in 2009 with industry members, in order to gain more specific insight into industry views, given the applied nature of this thesis. These informal interviews, lasting approximately 15 to 20 minutes, were conducted to determine whether it would be appropriate to conduct a series of formal industry interviews as part of the primary research exercise, particularly given resource constraints, and the consumer behaviour focus of this thesis.

The interviews touched on the following points:

- Generally speaking, do ad-supported services have the potential to increase revenue for industry stakeholders by monetizing consumer behaviour (and to what degree)

- Is the prospect of free music through legitimate channels something that might convince illicit downloaders to move to legitimate channels

- When considering ad-supported services, what service characteristics might consumers find attractive/useful, and what might they need to be offered to attract them to a free legitimate channel (particularly if the channel is one that rations music)

- From an industry point of view, are ad-supported services potentially viable in the short/medium/long term

The backgrounds of the industry participants interviewed are shown in Table 15.

Region(s) Covered	Professional Background of Participant
North America, UK	Consultant and former label executive with over 30 years' experience in the media industry, specializing in marketing, licensing, and digital media
North America, UK	Consultant with over 20 years' experience, specializing in consumer research in the media and music industries
North America	Senior executive with over 30 years' experience in the music industry, specializing in marketing, licensing, distribution, and digital music
USA	Digital media agency executive with 15 years' experience
USA	Senior executive of an ad-supported streaming service

Table 15: Regional coverage and professional backgrounds of industry participants

Circa 2007, many industry members were in favour of ad-supported download models as potential a way to monetize consumer behaviour and return revenue to industry stakeholders. However, within 18 months, two distinct camps had emerged, with one side arguing that the online space and advertising were so fragmented that it would be impossible for any service to gain a critical mass of advertisers to keep an ad-supported download service afloat, and the other side arguing that regardless, ad-supported models needed to be trialed as the industry was fast running out of other options to monetize consumer behaviour.

There did not appear to be a clear pattern to which executives thought ad-supported services had potential and which did not. The digital media agency executive, who worked more closely with advertisers and advertising inventory than the others, was the most skeptical of those interviewed, specifically citing fragmentation in the advertising market as a barrier to success, in addition to his view that the rationing of music would reduce the value of the proposition. The global industry consultant who was interviewed said there was evidence that ad-supported (streaming) services were catching on with consumers, but said the model may not be sustainable unless services could convert higher numbers of free listeners to upgrade to the paid, premium versions of the services they were using, to cover costs. The streaming service executive mentioned that even as one of the top ad-supported services in his market, changes to the royalty structure in his country would directly threaten the financial viability of his

business. Those with experience as label executives mentioned that publishing/royalty regimes and the complexity of music rights holdings can make it extremely difficult for new services to launch, because royalty payments can significantly impact a new service's profitability, but at the same time, labels are not prepared to give away millions of downloads or streams for free, and must carefully weigh the risks involved. One executive mentioned that smaller scale deals with individual companies, such as sponsored giveaways via product promotions, worked as a much easier to implement alternative to give consumers free music, when compared with an ad-supported download service. The executive who specialized in media research found that ad-supported services were very popular, and that there was a large audience with an interest in getting music for free. He said that labels and service providers needed to work together quickly to monetize this audience, particularly in markets where legitimate channels were lacking, and listeners were choosing to use alternatives that did not compensate stakeholders.

Recommendation features and an attractive music catalogue were the two key features mentioned as being attractive and/or important in a service, in the sense that the ability to discover new music can keep a user on a service longer, and the discovery of 'good' new music, or finding the music that was searched for in the first place, can increase a user's satisfaction, which in turn increases their propensity to use a service and recommend it to friends.

While some industry members thought ad-supported media content services had potential, the prevailing sentiment was one of cautious optimism, caveated by financial concerns. Concerns included the ability of a service to generate enough revenue from advertising to cover overheads, the ability of a service to overcome the complex requirements and restrictions of publishing and rights holding regimes (e.g. tiered royalties based on how much choice a user has in selecting music), balancing the rationing of free music streams/downloads with the potential for insolvency, and how to guard/insure against a service's insolvency. For example, rather than a discussion of what consumers really want and how close industry might be able to get to meeting those wants, or how to (even hypothetically) structure a service so that it could offer a substantial or 'reasonable' number of free downloads to users, executives in the music industry tended to offer the view that music must be rationed because that is the only way to ensure financial security for all parties, even if that was not what the consumer

wanted. The executive of the streaming service was financially constrained by the regulatory regime in his country, which, by its nature, forced his company to limit what its service could offer to consumers, to avoid paying higher royalty rates.

The general sentiment from the executives was that one or two free downloads was better than none, and there was not much industry would be able to do about that, until it was clear how anything would be paid for. In this sense, industry's opinions were constrained by the reality of financial concerns, and there was no speculation on what might be hypothetically possible in the short, medium, or long term, perhaps because these executives did not have the luxury to speculate in that way (i.e. businesses cannot win lotteries, so it can be difficult to think about an alternative reality when one knows the constraints one faces in today's reality).

It is also worth noting that those who were not particularly optimistic about ad-supported services put forth the argument that consumers would not want to sit through a great deal of advertising to download a song if they could get the same song for free without doing so. Critics and supporters alike expressed concerns about being able to attract high value advertising to brand new platforms at a time when new online destinations and social media services seemed to be launching practically every week, creating even more services for advertisers to have to choose between.

While the side of the debate that each executive chose appeared to be more to do with personal experience and intuition than anything else, the discussions also confirmed that inevitably (and understandably), industry executives were concerned almost exclusively with profitability, financial models, and the financial viability of new propositions. This was not entirely surprising given that their business expertise lay primarily in the music industry and digital media rather than consumer behaviour. Thus, the industry representatives were not able to give any particular insight into what sorts of characteristics a service could or should have to please consumers, in part because existing services at the time were considered fledgling, and had not yet achieved a great deal of success, so there was debate about whether such services were a correct approach in the first place.

While it would've been advantageous to speak personally with more executives who worked for ad-supported services, those who worked for such services treated much of the information about their services as highly confidential, sticking to press released talking points. Accordingly, much of the public industry debate (e.g. at conferences) was based on limited observation rather than factual analysis of services, or a discussion of potential that was heavily caveated with environmental restrictions (e.g. related to legislative and publishing regimes).

A key concern shared by industry members was how to get consumers to value the music they were consuming. In Canada in particular, where Internet piracy at the time was amongst the highest per capita in the world, senior industry executives stated the need to find ways to monetize consumer behavior instead of attempting to control it, whether that be through fees levied on portable music devices, or monthly fees levied on consumers' Internet connections via internet service providers.

Aside from the advertising fragmentation argument mentioned previously, a particular concern of American executives was the complex and relatively expensive royalty regime in the USA. The regime (for service companies) financially favours streaming services and giving consumers less choice, over allowing consumers to choose what to listen to on a streaming service, or to download music, in the sense that services that offer consumers less choice are substantially cheaper to run from a royalty point of view. While interviews revealed that a primary concern in Canada was how to instill a sense of value in music files (based on industry members having little confidence that legislation would assist with that), American industry members in particular lamented the difficulty in ensuring viable start up music services due to complex legislation and a large music rights holder lobby that makes it difficult for innovative new services to stay solvent.

The potential of ad-supported models has been a contentious, polarized topic in industry, and the concerns of industry members were found to be vastly different to those of consumers, within the context of this thesis. Industry is concerned with making money, and a music download service is a means to an end. Executives were found to be motivated (necessarily) almost exclusively by financial considerations including government regulations, industry lobbying, the ability to generate revenue, and to exert/maintain some degree of control over

music files via DRM. There did not appear to be an overlap with the consumer issues identified thus far.

Previous research has shown that industry has not typically been proactive in dealing with innovation related to consumer behaviour, and that much of this hesitation is influenced by financial considerations (e.g. Harris 2007). The research at hand is concerned with consumer attitudes and behaviour related to ad-supported music download services, investigating what consumers look for in such services (key characteristics), and how these key characteristics influence their attitudes toward using such a service. It is not investigating or concerned with corporate finance, government regulations, or business model construction, or a specific brand of service.

Accordingly, while it was initially considered advantageous to include an industry perspective in the primary research stages, it became clear from preliminary interviews with industry members, and attendance at conferences, that the constraints of legislative and rights holder regimes, and the infancy of and relative secrecy surrounding the operation of ad-supported services were such that conducting further research using a sample of industry executives would not make a worthwhile contribution to this thesis at this point in time. It was considered more appropriate to address industry views in a separate study, given that their perspectives do not contribute to this thesis' goal of providing a better understanding of consumer behaviour, and how to exploit consumer behaviour. The data from the informal interviews was not directly relevant to the research questions of this thesis, and it was agreed with the supervisory team that formal interviews with industry remembers would not form part of the strategy for primary research. Nevertheless, for completeness, and an industry perspective on the findings of this thesis, Section 7.3.2 includes a discussion of interviews that took place with industry executives at the time of this thesis' completion, commenting on the findings in the context of the ideal service characteristics that this thesis identifies, and the potential viability of a service that matches some (e.g. existing services) or all of these characteristics.

4.3.2 Group interviews

While individual interviews would have been preferred for their ability to delve into fine detail, group interviews were chosen as a research technique because they provided a time and resource efficient way to gather a sizeable amount of data

from subjects in multiple countries. For example, it might take 60 minutes to conduct an individual interview, whereas a group interview with 6 participants might be completed in 90 minutes. This approach provided significant cost savings, and greatly reduced the time needed for data collection (an important consideration for self-funded research).

Another benefit of group interviews is that a group dynamic can reveal additional meaningful elements for probing, that individual interviews might miss. In a one-on-one interview, answers can be somewhat limited to the questions that are asked, whereas in a group, participants can raise views that can also be explored by the other participants.

This section refers to literature on focus groups rather than group interviews because of the dynamics involved in focus groups. While the aim of the group interviews was the efficient collection of multiple responses, participant interaction and dynamics within the group were important and very necessary to consider. Focus groups (in the traditional sense) were not a practical choice because there was limited control over group size and attendance, hence the use of group interviews instead.

Birn (2000) explains the advantages of focus groups (i.e. group versus individual interviews), which he says tend mainly to centre on dynamic idea exchanges and creativity that comes with interacting in a group setting. Focus groups are useful in exploratory research, permitting a wide range of views to be gathered at each sitting, allowing for differences of opinion to emerge and be explored (Jarratt 1996, Saunders et al. 2009). Lunt and Livingstone (1993:91) say that "the utility of focus groups is restricted to the early, exploratory stages of research, such as in questionnaire design, in generating hypotheses or in helping to interpret survey or experimental results".

While acknowledged as yielding less data per participant than individual interviews, group interviews are acknowledged as an efficient and effective technique for exploratory research, facilitating the emergence of key themes and a diverse range of views within a single sitting. They are therefore an appropriate technique to use for this phase of primary research, which was used to test the initial model developed from the literature review and to form questions for an online survey.

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The group interviews conducted for this study explored consumer attitudes and the relevance and perceived importance of aspects related to the initial model shown in Figure 20. The topic guide was the same for all three countries, and included questions in seven main areas:

- Reasons for using online music services (e.g. for searching, discovery, music procurement)

- Good and bad experiences with online music services

- Features made use of on online music services (including perceived usefulness, ease of use, and value of those features)

- A description of their ideal (hypothetical) online music service

- Social involvement with music online (e.g. how they discover, share, discuss, recommend music)

- Motivations for file sharing

- Attitudes toward online advertising (including tolerance of advertising and perceived delays)

There were no specific research hypotheses for the qualitative phase, because it was used as a basis for exploring the proposed relationships in the model, to confirm whether they existed and had adequate definition.

4.3.2.1 Sample

As discussed in the literature review, the majority of music downloaders, and the most active downloaders fall within the 15 to 35 year-old age group. Therefore the target sample for the group interviews was music downloaders within this age range, particularly those who were users of illicit free services.

While it might be interesting to assess in group interviews whether there are differences in attitudes and habits of younger people versus older people (e.g. 20 year-olds versus 50 year-olds), preliminary interviews and the existing body of literature indicated that this would not yield much contextual benefit for the specific research topic being addressed, nor would it be a practical use of this project's limited resources. For example, there is a wealth of literature on the

music downloading habits of 15 to 35 year-olds, but relatively little focusing on older consumers, providing little context within which to frame any comparative findings. Additionally, people who are more likely to be attracted to free, ad-supported music download services are less likely to be older consumers, who mostly purchase CDs (Mulligan 2011, Papies et al. 2011). Consistent with available literature, most of the older consumers included in the exploratory interview stage said they did not download music, whether paid or unpaid, suggesting that a better use of resources would be to accommodate this demographic via the online survey.

The 'ideal' size for a focus group varies in the literature, but the range is generally understood to be between 4 and 12 participants (Birn 2000, Krueger, Casey 2000, McGivern 2003, Saunders et al. 2009). Lunt and Livingstone (1993) refer to groups conducted with as few as 3 participants. In determining the size of the group, a researcher must balance the complexity of the topic, the desired depth of probing, the opportunity for the expression of diverse views, as well as practical aspects of group management – for example, ensuring that there are not so many participants that some become disengaged and start having parallel conversations amongst themselves.

Given the number of topics to be probed in the group interviews, an ideal group size of 5 was aimed for in order to allow for in-depth views to be aired within a reasonable amount of time, without causing boredom in the groups. In practice, most groups consisted of 4 participants. The smaller group size did not appear to detract from the findings, with results from the smaller groups being consistent with results from the larger groups. It is also worth noting that these were group interviews, subtly different from focus groups in the sense that the group interviews delved into more detail, making a smaller group size more appropriate.

Similar to Guest et al.'s findings on individual interviews, Krueger and Casey suggest that for group interviews/focus groups, saturation can be reached in as few as three to four groups, after which point the same information appears in any additional groups. Both mention that if necessary, researchers should continue to conduct more interviews and focus groups until a saturation point is reached (Krueger, Casey 2000, Guest et al. 2006). Lunt and Livingstone (1993:95), discussing qualitative research validity and reliability, suggest that saturation in focus group findings can be an inherent mark of reliability. They

suggest that though individual groups differ in their composition and "different conversations would occur if [focus] groups were repeated", when multiple groups are run and eventually "no new stories are told", the researcher can be satisfied that enough groups have been run (i.e. for test re-test reliability).

An examination of mixed methods approaches by other researchers looking at music downloading topics (e.g. Freestone, Mitchell 2004, Kunze, Mai 2007), showed that different researchers used differing numbers of interviews and/or focus groups, based on their research goals.

Since the countries being examined for this research share a common language and have similar cultures, it was decided that a two-per-country target would be an adequate minimum target, including at least one group of high school students, one group of post-secondary students, and one group of people in full-time employment. This approach was taken to account for attitudinal differences according to age and personal income, based on findings in the literature review. Homogeneity within a focus group (e.g. having groups segmented into high school students, college graduates) also "helps to avoid major conflict among group members" (Freestone, Mitchell 2004:122).

10 informal group interviews were conducted between March 2010 and July 2010 (see Table 16), with a total of 36 participants interviewed. The median group size was 3.5.

Location	Group Composition
Toronto, Canada	2 groups of high school students (15-17 years old) 2 groups of workers (mid-20s, mixed occupations, including three musicians)
New York, USA	1 group of new graduates (in early 20s) 1 group of new graduates (in early 20s, some working in the music industry) 1 group of post-secondary students (music industry interns in early 20s) 1 group of professionals (late 20s and early 30s, mixed occupations, including one music industry)
York, England	2 groups of undergraduate university students (late teens, early 20s)

Table 16: Group interview samples

Sample selection is dependent on research objectives (Saunders et al. 2009). Judgement ('purposive') sampling is a commonly used technique for qualitative research, involving the purposeful selection of a sample that can be useful in answering the research questions (as opposed to random sampling). It is the "main technique used in small-scale exploratory research", and used "as a way of overcoming practical difficulties or limitations in using other sampling methods […giving some] guidance about what the population might be thinking, feeling, or doing" (Crouch, Housden 2003:161,163). Onwuegbuzie and Collins (2007:287) say "If the goal is not to generalize to a population but to obtain insights […] (as will often be the case in the qualitative component of a mixed methods study), then the researcher purposefully selects individuals, groups, and settings for this phase that maximize understanding".

Researchers who comment on the use of focus groups and purposive sampling note that while random sampling can be useful in qualitative research (depending on the research question), statistical representativeness of a population is not typically a primary concern for qualitative sample selections. However, Marshall (1996) notes, "age, gender and social class might be [examples of] important variables" that require consideration and representation in a non-random sample. For instance, if a study's research questions were concerned with why teenage consumers prefer hamburgers from one fast-food chain rather than another, it would not be sensible to include vegetarians or teenagers who do not eat fast food in a focus group simply because they would form a statistically representative sample of teenagers. It would, however, be important to have appropriate gender representation within a purposive sample of teenagers who eat hamburgers from fast-food chains. 'Appropriate' does not necessarily mean statistically representative, but rather, sufficient to accommodate the collection of views of particular demographics that are relevant to the research question (based on the judgement of the researcher).

Qualitative research, and more specifically judgement sampling, is typically concerned with making generalizations about a theory rather than a population. Crouch and Housden point out that one must be careful not to apply judgement sampling to represent "representativeness" of a general population or to make quantitative decisions based on this method, due to the potential for false readings. In the case of this research, however, no such quantitative decisions are being made from the group interview findings, and there is arguably a basis

in the literature for the representativeness of the sample employed, based on ample empirical evidence on downloader demographics. Additionally, the intent of this research is to build and provide context for a conceptual theory, as opposed to statistically describing the attitudes or behaviour of a generalized population (e.g. Johnson, Kaye 2004, Onwuegbuzie, Collins 2007).

While a judgement sampling technique assists in developing a useful sample for exploratory research, it does have limitations. For example, the selection of the sample could be skewed towards certain demographics or selection criteria. Demographic skew was an important consideration in this research, and diversity of gender, age, and employment/study status were important criteria considered in sample selection (as shown in Table 16).

It was initially planned that the sample would represent only illicit downloaders, particularly regular and heavy ones. In practice, the sample was much more diverse, representing light, moderate and heavy legitimate and illicit downloaders, those who only paid for music, and those who only streamed music. This unplanned aspect of the sample was beneficial as it reduced the sample skew, and allowed for the collection of much more contextual detail.

Gibbs (1997) mentions that focus groups can be difficult to assemble, and points out that "It is likely that people with specific interests will have to be recruited by word of mouth (Burgess 1996), through the use of key informants, by advertising or poster campaigns (Holbrook, Jackson 1996), or through existing social networks".

Given the practical difficulties in assembling face-to-face group interviews across three countries, a snowball sampling technique was used to distribute invitations. Snowball sampling is a technique whereby an invitation is sent to a person who then forwards it to others, with the aim of building the sample up with each successive level of distribution. An examination of literature shows that snowball sampling is typically used to recruit hard to find, "hidden", marginalized, stigmatized, or sensitive samples, or samples engaging in illegal activities, such as drug users, people with particular diseases or health concerns, or refugees (e.g. Heckathorn 2002, Abdul-Quader et al. 2006). While it is perhaps not orthodox for this study to employ a snowball sampling technique because it is not clearly dealing with a marginalized sample, there is still a stigma to some extent

related to illicit downloading, with many people hesitant to be open in detail about their engagement in such behaviour to someone they do not know. It was therefore deemed an appropriate technique for use in this case.

Snowball sampling is criticized for its subjective risks. For example, the nature of a snowball sample is "dependent on the subjective choices of the first respondent" as well as who the respondent forwards invitations to (Abdul-Quader et al. 2006). In this way, the researcher can lose a degree of control over sample composition, which has the potential to lead to a "skewing of sample characteristics" that makes it difficult to generalize to a population (Baxter, Eyles 1997:513). However, knowing the composition of the sample can provide an opportunity for the researcher to generalize to a specific subset of the population (Johnson, Kaye 2004), and as mentioned previously, this research intentionally considers specific subset of the population in order to make generalizations about a conceptual theory. Accordingly, the limited ability to generalize to a larger population is not seen as a significant drawback.

While snowball sampling presents limitations in making generalizations about a larger population, like judgement sampling, it can be practical for obtaining a sample that can answer research questions. While there was a risk of subjectivity in choosing these techniques, it was decided that the nature of the theory being developed and the criteria outlined for the sample were not so specific that using these techniques would adversely affect the quality or validity of data collected. Skew was not seen to be a particularly critical issue, given that the key criteria for sample recruitment were relatively general (essentially, the participants had to have used online music services), and this was an exploratory phase of research. In fact, the skew was actually reduced by using a snowball sample for the group interviews.

People were invited to participate in the group interviews via a combination of invitations sent to first-degree contacts on Facebook (acquaintances with which there had not been communication for many years), and requests via email to first-degree contacts working in educational institutions and youth organizations to forward the group interview invitation to their students. All invitees were asked to bring friends, colleagues, or friends of friends with them.

It is important to note that social media networks (Facebook and LinkedIn) were used in this research as an invitation delivery channel, and not for any other purpose (i.e. Facebook was not used as a pool from which to recruit strangers into a sample, or to look at how people interacted with or within a social network).

Electronic distribution has obvious advantages over postal or telephone invitations, and arguably allows the researcher to disclose less about the specific topics being researched and receive responses more quickly. For example, in a telephone call, a dialogue would be required, and for a postal invitation, stamps and trips to a post box would be required. Forwarding an invitation to another individual or group of individuals is more easily accomplished through online social networks, and allows more flexibility than email, as invitations can be sent (using fewer clicks) via private messaging to individuals or groups, or be posted on a user's wall for their entire network or portions of it to see. Invitations through social networks also do not encounter spam filters as emails would. Similarly, if the person forwarding the invitation wishes to invite others by telephone or in person, they only have the generic information from the initial electronic communication to pass on.

Most of the group interview participants were unknown to the researcher, but some of the participants knew each other (because they brought friends or significant others). There was a risk introduced by having some participants who knew each other, or who were acquaintances of the researcher, though samples of this nature are not unprecedented in published research. Lunt and Livingstone (1993) suggest that samples which include participants that know each other could even been seen as a positive feature, commenting that "much of the innovation in focus group design has involved moving away from [a particularly objective] survey sampling approach to engage 'naturally occurring' groups of like-minded people".

Interpersonal influence is a potential risk in groups where some members know each other, because it introduces the potential for answers to be influenced by prior relationships, knowledge, or shared experiences. For instance, Kitzinger (1995) refers to her research in which a "group discussion with old people in long term residential care" took place, and in her facilitation of the discussion, she "found that some residents tried to prevent others from criticising staff – becoming agitated and repeatedly interrupting". Other manifestations can

including finishing of each other's sentences or reference to personal knowledge of another participant's experiences, opinions, or behaviours, a participant's reference to the experience or behaviour of someone else in the group, or interpreting or commenting on the actions of others based on previous or private knowledge.

Marshall (1996:523) suggests ways to mitigate the risk of participants being known to the researcher by "[stratifying participants] according to known public attitudes or beliefs". In this case, the researcher did not know the attitudes or beliefs of any of the participants, other than knowing they wanted to participate in a group interview that would be asking them about what they liked and did not like about online music services and online advertising. Similarly, the nature of the relationships between the researcher and participants was such that the participants did not know the beliefs of the researcher as a result of any previous communication or encounters.

The use of first-degree contacts in a sample is not unprecedented, and does not necessarily adversely impact the data collected (e.g. Smithson 2000). There was no evidence or indication during the group interviews or in the analysis after, that prior relationships adversely affected the data collected. There was no evidence of responses coloured by shared experience or prior knowledge, no body language, facial expressions, interruptions, comments, references, or tones of speech to indicate interpersonal influence on responses or behaviours. The data from the group interviews was also corroborated by preliminary interviews and an online survey, where interpersonal relationships did not come into play.

Because downloading is an individual, independent activity, two individuals within a group who know each other are highly unlikely to have the same habits or motivations in their frequency of downloading, reasons for using particular services, or attitudes toward online advertisements. As discussed in the literature review (and confirmed in primary research) a person's music downloading behaviour and ethical beliefs are individual. This is an important consideration that was taken into account in the assessment of the risk when choosing sampling techniques to use. In a study of a different nature, for example, group interview participants being asked to comment on their memories of primary school or their time at university, interpersonal relationships would be a much greater cause for concern. In that case, for example, participants could draw on

collective experiences that influence their responses, potentially leading to dominant voices or blocs within groups, discomfort with the knowledge that others have of one's own behaviour, or discomfort or fear as a result of past interactions with a participant, potentially impacting responses and discouraging some participants from contributing to the group.

This research sample, as with most qualitative research samples, has its limitations. All practical measures were taken to lessen the effects of these limitations in order to ensure the validity and reliability of the data, including assuring confidentiality of participants, triangulating data sources, choosing the judgement sample as carefully as possible within the scope of available resources, maintaining a neutral demeanour, and monitoring the group behaviour and data collected to check that it was not adversely affected by interpersonal relationships.

Lastly, it is important when using judgment and snowball sampling to clearly state in research conclusions which population or subset the developed theory is generalizable to, based on the limitations of the sample used, in order that the context of the findings' validity and reliability is clearly understood.

4.3.2.2 Data collection

The group interviews ran for approximately 75 minutes each. While notes were taken by hand, the groups were also audio recorded for note-taking purposes. The participants were informed of this in their invitations and at the start of each group interview, and assured that their identities would be kept confidential.

Group interviews "can be held in a variety of places, for example, people's homes, in rented facilities, or where the participants hold their regular meetings if they are a pre-existing group" (Gibbs 1997). Lunt and Livingstone (1993:85) state that "The setting should be as informal as possible, so as to stimulate group conversation". The group interviews were held in accordingly suitable locations (casual restaurants), and refreshments (pizza and soft drinks) were served. This was a deliberate choice, in order to reduce any perceived sensitivities about the topic, encourage the participants to feel relaxed and at ease, and encourage open, free, and honest dialogue. Participants were each given a flat remuneration of £10/$10 in consideration of their time and travel expenses.

In an attempt to minimize bias due to pre-supposition of the topic being explored, participants were told that they would be asked about music downloading services they liked and did not like, and their opinions on online advertising, as opposed to being told that this was a study related to ad-supported services. The discussions did not focus specifically on illicit downloading or ad-supported services. Instead, they focused more on downloading habits and services in general, before getting more specific. It was important to ensure, when asking consumers about music services in group interviews, that the discussion was kept general enough so as not to seem to focus on one particular music service, and rather focus on the concept of music downloading services in general.

While the group interviews were based on convenience sampling, there were some unplanned aspects of the sample that ended up providing useful qualitative insight, because in practice, not all of the participants who used online music services were music downloaders or illicit music downloaders.

The first interesting example is that the group interviews ended up including some people working professionally in different sectors of the music industry (technical, creative, and business), giving surprising insight into their attitudes on file sharing, as members of the music industry (discussed in Chapter 5).

The second interesting example is that the target sample aimed to include only people who downloaded music illicitly (as opposed to streaming music or paying for music). However, in practice, the group interviews, particularly in New York and York, did include a few people who only streamed music or primarily streamed music, and a few people who did not illicitly download at all. In hindsight, that was very useful, because it provided additional insight into how consumers interact with and evaluate online music services in general. This example raised the point that people who currently pay for their music downloads, or stream music, may be just as interested in a free, ad-supported music download service as illicit downloaders. In fact, those who did not download illicitly at all had similar opinions about services to those who did routinely.

While the views of participants who exclusively streamed music were not as useful generally, given the aim of this study, they were still able to offer interesting insights on aspects such as service features, usability, and attitudes

toward online advertising. Those conducting future research on this topic may wish to take this into consideration when planning their samples.

4.3.2.3 Data analysis

Over 15 hours of data was collected. As each subsequent group interview was conducted, more concrete themes emerged from the sessions, providing initial categories for thematic analysis. Asides and remarks unrelated to the research topic were not included in transcriptions.

Manual thematic analysis was used to refine the initial categories and determine key themes. The categories were developed based on a mixture of inductive analysis (from the qualitative data collected) and deductive analysis (from the literature reviewed in Chapter 3), with some categories being added that were supplementary to the literature review, for example, related to searching for and discovering music online, ideal hypothetical service, and openness to an ad-supported service.

The categories covered user behaviour, perceptions, and evaluation as follows:

- How the participants search for, discover, and interact with music online

- Examples of positive and negative experiences with music services

- Whether extra features are seen as offering added value

- Registering for online services and providing personal information

- Motivations to file share or not file share, and the influence of various norms on illicit downloading decisions

- Ideal hypothetical online music service

- Attitudes toward online advertising in general, and what makes a good or bad advertisement

- Sentiments about online music communities, and online social interaction related to music (e.g. including via social media)

- Awareness of and openness to ad-supported services

Where possible, findings from the group interviews were compared with the literature. The group interview findings were also used to make revisions to the initial model (see Section 5.1) so that hypotheses could be developed, along with appropriate questions for the online survey.

4.4   Quantitative research

An online survey was used to validate the model that was refined after the group interviews (see Figure 26). This strategy was used so that quantitative data could be available to supplement the qualitative data gathered, with the two in combination providing a richer context for analysis than either could alone.

Surveys can record and quantify data about attitudes, opinions, behaviour, and attributes such as age or education level (Saunders et al. 2009), and can be used to gain insight and draw conclusions on population segments.

Due to the nature of this study, with samples of downloaders being required in three separate countries and limited resources available, it was not practical to conduct surveys in-person, by mail, or over the telephone. Accordingly, an online survey was used. This was considered appropriate given that the desired sample implicitly had to be users of the Internet (see Buxmann et al. 2005, Dufft 2005).

Online surveys provide many advantages over traditional methods. They make it much easier to reach a large and/or global audience in a time-efficient, cost-effective manner (Evans, Mathur 2005, Han et al. 2009), and are easier to conduct follow-ups on (Evans, Mathur 2005). They are also easier to analyze, and the surveys can be customized to the target sample and designed so that respondents must answer specified questions, helping to ensure that survey completions are valid (Ranchhod, Zhou 2001, Evans, Mathur 2005). Evans and Mathur also suggest that online surveys are more convenient for respondents because they can complete them at the time of their choosing.

While there are clear advantages to online surveys (versus traditionally administered surveys), the method also has its weaknesses. The potential exists for online surveys to yield different data to paper surveys due to the nature of the medium, though Denscombe (2006) suggests that the quality of data obtained from an identical questionnaire administered online versus on paper does not statistically differ.

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Response rates are also an oft-cited weakness of this method. Typical online survey response rates of 7% are mentioned by a number of authors, as are respondent concerns about privacy (protection of identity and anonymity of answers) and the perceptions of the survey invitations being impersonal or being perceived as spam (Ranchhod, Zhou 2001, Evans, Mathur 2005).

Separate to the concept of response rate (whether a person decides to start the survey) is the notion of survey abandonment/dropout/attrition (people who start a survey but do not complete it), though the terms are sometimes used interchangeably, as occasionally the case in this section.

It has been suggested in some literature that dropout rates can typically range from 10-30%, with lower dropout rates being partly attributable to receiving an individual invitation to complete the survey (Galesic 2006, Matzatet al. 2009). This compares with around 5% attrition for telephone and face-to-face surveys, though online survey attrition can be as high as 80% (Galesic 2006).

Han et al. (2009) and Wiley et al. (2009) discuss suggested methods for increasing response rates. The areas discussed include incentives, trust, relevance, fun, and survey length, and are based on literature reviews and primary research (both studies involved surveys distributed to over 12,000 people, with response rates of approximately 7%).

Han et al. (2009) say that incentives for survey completion can be monetary or non-monetary, with popular forms of the latter being the opportunity to view the survey results. They mention "fun" as being an intangible incentive for survey completion that can be used to increase response rates. Material incentives do not always increase response or completion rates (Galesic 2006).

Respondents' feelings of trust were identified by both Han et al. and Wiley et al. as important. Respondents were found to value their privacy, and wanted to know that their answers were confidential and anonymous. Though Wiley et al. suggest that there is no conclusive evidence that assurances of privacy increase response rates, what they do not mention is that the effect is perhaps related to the topic being surveyed, whether or not it is perceived as sensitive or personal, and whether or not respondents are asked for personal information.

Many people perceive surveys as being "too long, and dismiss surveys at first sight" (Han et al. 2009:435). The body of literature as a whole implicitly suggests that shorter surveys encourage higher response rates, but the specific literature examined on online survey attrition (e.g. Galesic 2006, Matzat et al. 2009) tended to use or reference data related to relatively long surveys (20 to 40 minutes to complete), limiting the usefulness of the results.

Han et al. found that the perceptions of survey relevance and social benefit were also important in encouraging an increased response rate. They found that respondents tend to view online surveys as boring, and that there is an opportunity cost involved in completing them, with time and effort perceived as the most important costs, and effort being "closely related to the number of questions [in the survey]" (Han et al. 2009:435). They say this feeling could be reduced by focusing on aesthetics, question wording, topic relevance, and adding a survey completion progress bar. Wiley et al. (2009) also mention the importance of survey aesthetics, though both papers mention that there is no conclusive or in-depth research in this area, so they could only make general comments.

People are more inclined to complete surveys that they perceive as being relevant, and they like to think that they are being nice by "helping others" when they complete a survey, so they are more likely to complete surveys if they see a clearly stated "social benefit" (Han et al. 2009).

Adding a personal touch to encourage affinity improves respondents' willingness to participate, and it was suggested that "credibility" may be a factor, in terms of respondents having the sense that the researcher is a real person conducting real research that will offer some social benefit. Wiley et al. (2009) identified studies that found that "university sponsorship" increased response rates (e.g. mentioning that the research is affiliated with a university).

Research on response rates and attrition is unanimous in stating the importance of maintaining participants' interest and reducing the perceived burden of completion. Clear, concise, unambiguous questions and answer choices and leaving out irrelevant graphics are important details that can reduce perceived burden and increase credibility (e.g. Andrews et al. 2003, Lumsden 2005, Galesic 2006).

Both Han et al. and Wiley et al. found that follow-ups for survey completion increased response rates, though follow-ups are not always able to coax out extra responses.

Overall, it seems the literature on increasing response rates and decreasing dropouts for online surveys is empirically inconclusive because of the restricted scope/comparability of the individual studies. While the studies are certainly useful and interesting, they generally imply that it is important to use common sense. Table 17 proposes some best practice guidelines for encouraging greater completion rates, starting from the point of a respondent arriving at the survey's welcome (or first) page.

Show It Is	By Doing This
Worthwhile	• Briefly mention what the survey is about • Provide an incentive for completion (e.g. prize draw or copy of survey results) • Show how the survey is relevant to the taker or provides a social benefit
Credible	• Add a personal touch to show the researcher is a real person • Include a way to contact the researcher (e.g. professional email address) • Mention university sponsorship/affiliation if it exists • Assure participants of confidentiality • Use an appropriate font and colour scheme
Easy to Complete	• Keep the survey as short as practicable, and accurately indicate how long it will take to complete • Ensure questions and answer choices are concise, unambiguous, and easy to understand, and that questions are asked in a logical order, with potentially contentious questions near the end of the survey • Make the survey visually appealing (e.g. colour scheme, layout), easy to read, and avoid any necessary graphics • Add a progress/completion bar

Table 17: Elements of best practice for constructing an online survey for consumer behaviour research

It would be useful for future research in this area to include surveys on different topics (to test the methods used and validate reliability of the conclusions arrived at), shorter surveys (5 minutes, 10 minutes, 15 minutes), and a variety of invitation methods (personal invitations, group invitations, or simply advertising the survey online without any direct invitations), as starting points in a single study. These were not raised as limitations in the research papers consulted. Without appropriate consideration of the validity of the conclusions of such research, the literature in this area remains limited in its applicability.

4.4.1 Pilot online survey

The aim of the pilot exercise was to ensure participants understood the questions being asked in the survey and to gather feedback on respondents' experiences of taking the survey (e.g. comments on whether it was an acceptable length). It was therefore useful to use a sample of people who would be more likely to provide feedback. As such, a convenience sample was used, as it was the most appropriate and efficient technique for addressing the objectives of the pilot. Saunders et al. (2009) note that non-probability sampling can be useful for survey pilots, as it offers a degree of practicality.

24 invitations to complete the pilot survey were sent out to a convenience sample of English-speaking first-degree contacts of the researcher in December 2010. The pilot was used to gauge question understanding and completion time. 24 people started the survey, and 23 people completed it. Of those who finished the survey, there were 16 valid completions. 7 of the 23 completions were excluded from the full survey (automatically forced to exit) because they did not download music at all.

The pilot took most people 10 minutes or less to complete. As a result of feedback from pilot participants, amendments were made to question wording, and three new questions were added. The pilot identified one question that was worded inappropriately, and questions were shortened where possible to encourage higher completion rates for the final survey. Wording was also changed slightly for questions regarding perceived trustworthiness, so as not to appear leading. A question was added about employment status and educational background in order to be able to view potential trends related to socio-economic background, and a question was added about whether the respondents considered themselves to be part of the music industry (by education or trade),

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so that it would be possible to examine whether participants with such a background held different views.

4.4.2 Final online survey

The proposed best practice guidelines in Table 17 say that the researcher should show the potential survey taker that the survey is worthwhile, credible, and easy to complete. It suggests that there should be a welcome page or section to address aspects of the survey's credibility and worthiness of the taker's time.

In the case of the survey constructed for this thesis, respondents were assured on the survey's welcome page that they could not be personally identified, and that their results would remain anonymous. The incentive offered for survey completion was an opportunity to receive a summary of the results when they were available, and the researcher's email address was provided (a private domain address, rather than Hotmail, Yahoo, or Gmail, for additional credibility). In line with reducing the perceived effort required for completion, the welcome page said that the survey would take less than 10 minutes to complete, and included a disclaimer that respondents had to be over 15 years of age, and if they were under the age of 18, they required the permission of their parent or legal guardian in order to complete the survey.

It was important to keep the survey short (within the 10 minute timeframe) in order to ensure that as many people as possible would complete it once they started it, and that they would perceive it as sufficiently short and easy to complete that they would be willing to ask at least one friend to as well.

Attention was paid to aesthetics and question wording to encourage perceptions that the survey would be easy to complete. The colour scheme was kept simple to reduce eye strain, imply professionalism, and allow respondents to focus on thinking about their answers without the colour scheme competing for their attention. A blue header was used for each page (blue is commonly referred to as a calming colour, in the way that red is often referred to as bold or attention getting), which complemented the beige shading of the answer choices. A professional-looking, easily readable font was used to add credibility, and aside from the questions on demographics, only one question per page was presented, for simplicity. Words were used economically, to reduce perceived effort by keeping the questions as short and unambiguous as possible.

A percentage completion progress bar was added. The survey tool used black by default, which is relatively neutral and therefore ran the risk of not being noticed by the survey taker. This was changed to green, to be more noticeable and engender a positive perception of progress. Similarly, a percentage measure was used instead of number of questions answered, because it was thought that survey takers might be put off by seeing that there were 34 questions to complete (mostly one by one). The percentage measure increased in larger units, which was thought to be a more positive indicator of progress.

Figure 24 shows a screenshot for one of the survey pages.
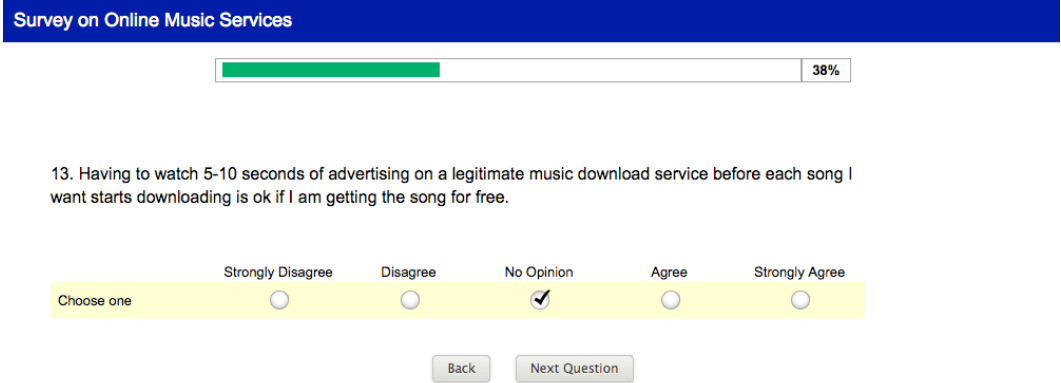
Figure 24: Screenshot of online survey question

The survey began with demographic questions, putting two or three per page in order to give a 'boost' to the progress completion bar, and give respondents the perception early on that the survey would not take longer than stated on the welcoming page. These questions were deliberately put at the start of the survey because they were the only ones to be filled out by all respondents, including those who the survey forced to exit early because they did not download music. It was decided that there was merit in this approach because it could provide potentially useful additional information (i.e. demographics for streamers and non-downloaders). The risk of this approach was mitigated by not asking demographic questions that could be perceived as sensitive or even irrelevant, for example, about income or race.

Some of the questions were perceived as "very similar" in the pilot survey, which could perhaps encourage boredom. The question wording was intentional, however, in order to provide a validity check for answers. It was hoped that

keeping the survey under 10 minutes would mitigate the risk of abandonment due to boredom.

The survey had a natural advantage in terms of communicating its social benefit, in that it used a distribution method that had a personal appeal. Rather than using the survey tool's built-in email distribution (which had the potential to get caught in spam filters), the initial batch of respondents was invited personally by the researcher – by email, invitations through online social networks, or by receiving a business card with a survey link on it. Respondents were encouraged to complete the survey and post it on their social network feed or forward it to others to build the snowball sample (see Section 4.4.2.1). Respondents were informed that the survey was part of the researcher's doctorate of business administration research, so they could see that their participation had a social benefit. Even as the snowball progressed, respondents received invitations to complete the survey from someone known to them, so there was affinity (and presumably an element of trust) with their friends or colleagues even if there was none for the researcher.

To account for respondents who would inevitably complete the survey having no idea who the researcher was, the welcome page made sure to mention the researcher's name, course, and university, and provided an email address for the researcher, with a privately owned domain name that made it easy for those concerned about credibility to do any due diligence on the researcher. The welcome page also appealed to respondents' desires to help others and see a social benefit, by mentioning the survey was part of a doctoral degree.

Determining questions for the survey was a difficult task, given the importance of keeping the survey sufficiently short to encourage higher response rates. As this is a new topic for academic study, with a new model being proposed, there was no item bank of questions available to draw from, so the questions were developed based on the literature review and qualitative research findings. The final survey consisted of 34 items. 23 items were measured on a 5-point Likert scale, with the others consisting of demographic questions and one ranking question. A copy of the final survey can be found in Appendix B.

An examination of other studies on music downloading reveals that Likert scales are the most popular measurement scale, though some studies used 5-point and

others used 7-point, without explaining reasons for doing so. Some studies did not mention what type of scale they used. Dawes (2008) found that the difference in data characteristics between 5-point and 7-point scales is negligible, though means tend to decrease in magnitude as scale points increase, because respondents tend not to choose extremes on either end of a larger (wider) scale. Attitudes are not discrete (broken into individually measurable units), so wider scales, with their greater granularity, can also offer a better approximation of continuous data, because they have the ability to more closely represent continuous concepts.

It is important to consider what level of detail is necessary in a scale in order to achieve research aims. People tend to have an opinion (positive or negative, strong or weak) or no opinion at all on a given subject. A 3-point scale would not provide sufficient detail for the purposes of this thesis, because it would only indicate, positive, negative, or neutral opinions, without indicating whether such positive or negative views are weak or strong. A 4-point (or otherwise even) scale would not allow for the expression of no opinion, which is also an important piece of information in this thesis. A 7-point scale would provide a higher degree of granularity, with extra data points potentially reducing skew and permitting finer and more complex statistical analysis; for example, in addition to knowing that a respondent agrees, or agrees strongly, a 7-point scale would have the additional value of 'agree somewhat'. A 7-point scale, however, runs the risk of being time consuming and onerous for respondents, in that respondents have more answers to choose from, so may need more time to think about their choices. Given the challenges mentioned previously about survey completion and abandonment, it was decided that a 5-point scale would be most appropriate because it would be able to indicate sufficient relative strength of an attitude, without the scale choices being perceived as superfluous, arbitrary, or excessively time consuming. 5-point scales were found to be common in literature related to music downloading (e.g. Freestone, Mitchell 2004, Levin et al. 2004, Taylor 2004, Fetscherin 2005, Chu, Lu 2007, Ramayah et al. 2009).

Screening criteria were built into the survey. Basic demographic questions were asked, and then in order to have access to the full survey, respondents would have to have answered that they downloaded music at least once a year. Those who did not meet that criterion were excluded from the full survey (automatically forced to exit), after the demographic questions, which on their own could yield

potentially useful data. The survey was structured such that those who were excluded did not realize that they had not seen the full version.

4.4.2.1 Sample

The purpose of the online survey was to validate the group interview findings and the revised conceptual model that came out of the group interviews. It was intended to refine and make generalizations about the theory developed throughout this research, rather than to statistically describe a population. It was therefore not essential that random or probability sampling be used.

Convenience sampling can be considered a form of judgemental sampling (Marshall 1996) in the sense that a sample can be conveniently obtained (e.g. first-degree contacts, students) yet still be subject to certain selection criteria. This technique has been used by a number of researchers conducting surveys related to music downloading (e.g. Freestone, Mitchell 2004).

Given the aims and scope of this research, a judgement sampling technique along with a snowball technique were considered to be the most appropriate sampling techniques for the survey. While these techniques introduce the potential for subjectivity, steps were taken to mitigate these risks, many of which have been discussed in Section 4.3.2.1 . Additional risks specific to the quantitative research phase will be discussed here.

University students are used in samples for the majority of academic articles cited in this thesis (e.g. Goldsmith, Lafferty 2002, Cho, Cheon 2004, Newman et al. 2004, Burns, Lutz 2006, Lysonski, Durvasula 2008, Plouffe 2008, Castañeda, et al. 2009, Cheng et al. 2009). These studies had survey sample sizes ranging from approximately 100 valid responses (Castañeda et al. 2009) to almost 900 responses (Cheng et al. 2009), with most samples consisting of between 200 and 300 people.

The use of university students for an entire sample or the majority of a sample is not necessarily a shortcoming, as many studies point to 15 to 35 year-olds being the most prolific downloaders of music, and are specifically concerned with researching behaviour of this demographic (see Section 3.4.2). Had these studies been concerned with the downloading habits or ethical beliefs of the population as a whole (e.g. 13 to 65 year olds), then using convenience samples

of students would be inappropriate as it would lead to invalid conclusions if generalized to a wider population.

In the case of the research being conducted here, the use of judgemental/convenience samples as described in this chapter is acceptable and valid given the aims and scope of this research.

When non-random sampling is used, a sample size must be chosen to allow for generalizations about theory as opposed to generalizations about a population (Crouch, Housden 2003). Determining a sample size for this survey required consideration of the researcher's aims for the degree of reliability and comparability of results, as a whole, and between the three countries being examined. Saunders et al. suggest a minimum of 30 responses per segment or subset in a quantitative survey in order to be able to make statistical comparisons (e.g. subset by age, education), which would suggest a minimum of 90 responses overall. However, consultations with two statistics experts, one at Imperial College London and another at Robert Gordon University, suggested that this number was insufficient as a minimum, and would likely not yield useful enough data to be able to comment with any certainty about the model being tested.

An expert on statistical methods at Robert Gordon University recommended power analysis as a way to calculate an appropriate minimum sample size.

Power analysis (in simple terms) is a statistical method used to determine a sample size based on the probability of seeing an 'effect' that is statistically significant (for example, consumer agreement that an item is useful or important or positive). When more answer choices are available (e.g. 5 choices instead of simply agree, no opinion, and disagree), it is possible to have a greater distribution of responses across the available answers, requiring a larger sample size in order to detect a meaningful statistical difference in responses across the wider range of choices.

For reasons of practicality, it was recommended by Robert Gordon University's statistics expert to take the approach of calculating a sample based on results being classified in terms of 'agree' versus 'fail to agree', and based on more than a simple majority of respondents falling into either of those two categories (i.e. a threshold of 60% or more or 40% or less for an effect to be considered

observed). The recommended approach was based on the more conservative two-sided test rather than a one-sided test (which would only consider a threshold of 60% or more).

For the aim of this research, a target power of 0.8 was recommended. This represents an 80% probability of seeing an effect, based on a 20% chance of failing to observe the effect (a 'Type II error').

If a two-sided agree/fail to agree threshold of 60% is aimed for with a significance level of 5%, a minimum of 194 valid responses would be required (153 responses for a one-sided threshold). Table 18 shows the different sample sizes recommended for different two-sided thresholds. For simplifying discussion about the validity of comparisons between countries, a sample size of 194 was aimed for in each country (as an ideal), though this was not an essential requirement. Given that there are peer-reviewed studies in academic journals that have quantitative samples as low as n=59 (e.g. Joines et al. 2003), it is reasonable to assume that a minimum target of 194 valid responses overall will still be sufficient to make inter-country comparisons, provided there are a still a reasonable number of responses gathered for each country.

Two-Sided Threshold	Target Power	Required Sample Size
55%	0.8	783
60%	0.8	194
65%	0.8	85
70%	0.8	47
75%	0.8	29
80%	0.8	20

Table 18: Recommended sample size based on two-sided threshold power analysis (5% significance level)

With a typical response rate of 7% for online surveys (Ranchhod, Zhou 2001, Evans, Mathur 2005, Han et al. 2009), almost 3000 invitations would need to be sent out to music downloaders in each country (9000 invitations in all), in order to meet the required sample size for a non-convenience sample. That was not a practical option for this research, which further justifies the use of convenience sampling.

Given the complexities of distributing a survey across three different countries, and the large number of invitations that would need to be sent, a snowball sampling method was used (Goldsmith, Lafferty 2002, Kunze, Mai 2007, Saunders et al. 2009). This method is described in Section 4.3.2.1 . This sampling technique was used by Kunze and Mai (2007) in their research paper examining perceived risks and risk relief strategies in the consumer adoption of paid music download services, with no adverse effects mentioned.

Snowball sampling is the most sensible method to use for the online survey given the research aims, as it is likely to distribute a far higher number of invitations than the researcher would be able to achieve alone, and to yield a higher response rate, as research suggests that people may have more incentive to complete the survey if they have been invited to by someone they know.

While there are risks associated with snowball sampling, such as sample skew, these have been addressed in Section 4.3.2.1 .

4.4.2.2 Data collection

The online survey was conducted between late January 2011 and mid-April 2011. Approximately 250 direct invitations were sent by the researcher, with no follow-ups. Given that this thesis deals with aspects of online consumer behaviour, sending invitations predominantly via online channels (to a sample that is assumed to be comfortable with using the Internet) was seen as ideal.

372 people started the survey, and 270 people finished the survey (60 people who were exited early from the survey because they neither streamed nor downloaded music were counted as not finishing). Of the 270 people who finished the full 34-question survey, 239 valid responses were yielded. Responses were invalid if any of the following applied:

- The participant did not spend most of his/her time in Canada, the USA, or the UK (18 respondents)

- The participant had downloaded less than 12 songs within the previous 12 months (13 respondents, after the removal of those outside the specified target markets)

It was decided that the opinions of respondents who downloaded an average of less than 1 song per month (12 songs per year) were not relevant to the research findings, because they could not by any measure be considered regular downloaders.

While the literature suggests that follow-up invitations could increase the response rate, given that the invitations were sent using a snowball technique, and participants were assured anonymity, there was no mechanism to be able to send follow-ups to individuals.

4.4.2.3 Data analysis

It is important to be clear that the survey was not intended to make statistically representative inferences about a population at large. Instead, it was intended to measure positive and negative attitudes based on levels of agreement or disagreement with statements. In this way, the survey intended to build on the qualitative data to show whether the proposed model is valid and reliable in a qualitative rather than statistical context, making general inferences about a theory (Crouch, Housden 2003) rather than a population.

SPSS was used for the survey analysis. To determine whether any statistically significant demographic relationships existed, and to avoid Type I and Type II errors (observing an effect that does not exist, or failing to observe one that does) selected analysis techniques were employed, in three stages.

First, to highlight any significant relationships, a Mann-Whitney Independent Samples test was used for comparing two groups (e.g. males and females), and a Kruskal Wallis test using K-Independent Variables was used for comparing three or more groups (e.g. comparing responses from five different age groups, or three different countries) (Weinberg, Abramowitz 2008).

On the recommendation of a statistics expert, for indicative purposes only (because the survey data was not normally distributed given that a convenience sample was used), an Independent-Samples T-Test was used to make comparisons between two groups, and a One-Way ANOVA test with a Post Hoc Tukey test was used to make comparisons between three or more groups. This indicative step was taken in order to highlight and/or provide additional detail on potentially significant relationships for further investigation.

For any significant relationships that were identified in the first two stages, crosstabs were used to gain further insight. The survey results in Section 5.4 have been presented as 3-point scales (agree, no opinion, disagree) to provide clarity for readers, but the analysis was done on the 5-point data (which is referred to in the analysis where significant relationships are found). Chi-square p-value significance tests were run, with a p-value equal to or less than 0.05 representing statistical evidence of significance.

In some cases, significant relationships are mentioned in the survey findings even if they did not show up in most or all tests as statistically significant (e.g. aspects that only showed up in the crosstabs as significant, or had chi-square p-values greater than 0.05). Sometimes relationships were shown to be statistically significant (in the Mann-Whitney and Kruskal Wallis tests) when there were not actually any meaningful patterns observed in the crosstabs.

For each group of questions that was related to a particular construct (e.g. freedom of use), a test for statistical reliability was run, to determine whether the questions could be (potentially) grouped together to represent a construct. A group of questions was determined to be statistically consistent and reliable if Cronbach's Alpha was equal to or greater than 0.7, with all pairwise correlations greater than 0.3.

4.5   Limitations of primary research

Primary research can be resource intensive and costly, and the international nature of this research places limitations on how it can be conducted, such as limitations on the size and type of sample that can be reached. In an ideal world, with the availability of sufficient time and funding, the researcher would have preferred to use a probability or quota sample more representative of the general population in the markets being examined, by age, employment status, education level, and socio-economic background. It would have been ideal to interview the same types of groups across each country.

Bias can be present on the part of the interviewer when conducting qualitative research and interpreting responses, and this is an important consideration. The researcher must take care to be as neutral and objective as possible.

In the use of snowball sampling, there was a risk of bias, that the respondents would be mainly first-degree contacts of the researcher, or that participants could

distribute the survey to peers with similar views (Lee 1993 in Saunders et al. 2009). It is not accurate, however, to automatically assume that a person shares homogenous views and interests with all of their friends, colleagues, students, or peers. In the group interviews, some participants had markedly different views than their friends or significant others. The researcher made a point to reach out to first-degree contacts with diverse backgrounds and people with the ability to distribute the survey to many others unknown to the researcher. A number of the first-degree contacts were people that the researcher had not been in contact with for a long period of time, minimizing the potential bias of selecting a convenience sample that (unwittingly) holds similar views to the researcher. All practical steps were taken to minimize the limitations of the sampling techniques used, and the researcher is satisfied that the data collected is valid and reliable for the population subset covered in this study.

The group interview participants all normally lived in urban environments, and could almost all be considered middle class. Aside from the high school students, all of the group interview participants were pursuing or had attended or completed college or university-level education. As with the group interviews, the majority of the convenience sample for the online survey could be considered middle class, and most likely living in urban or suburban locations. This bias toward a particular socio-economic background was noted in the analysis stage.

While the group interview participants were interviewed in Toronto, New York, and northern England because they were living or working there, the American and British groups included participants who normally lived in different locations (e.g. during school vacations), including smaller cities and towns. Overall, sufficient diversity was maintained across the group interviews (age, location, work/study interests), to provide useful information, however in future it would be desirable to include representation from additional towns and cities.

4.6   Validity and reliability

Research validity concerns the accuracy and generalizability of findings, and whether theory and evidence support the conclusions that are drawn. Where validity is concerned with accuracy of findings rather than the tests used to reach them (Golafshani 2003, Morgan et al. 2006:51), reliability is concerned with the consistency of the findings, and whether repeating the same research methods and procedures will yield the same results (Golafshani 2003, Drost 2011).

A review of papers related to consumer behaviour studies reveals that there lacks a commonly defined checklist for validity types that consumer behaviour researchers can apply, leaving it to the researcher to decide what to address in order to justify findings, based on the research questions, objectives, and methods used. The challenges of defining validity and which types apply when are articulated well by Winter (2000), who states that validity "is not a single, fixed or universal concept", and "The fact that there are so many possible definitions and replacement terms for 'validity' suggests that it is a concept entirely relative to the person and belief system from which it stems". Onwuegbuzie and Johnson (2006:48) expand on this argument by noting that "Research needs to be defensible to the research and practice communities for whom research is produced and used", and that the types of validity that are considered are largely dependent on the stakeholders of the research, and those in the relevant research community.

Easterby-Smith et al. and Winter (2000) mention that validity and reliability are concepts originally used for quantitative research, and because these concepts "might imply acceptance of one (positivist) reality" (Easterby-Smith et al. 1991:40), qualitative researchers can be hesitant to transfer these ideas directly to interpretivist research. Along these lines, Winter (2000) mentions the philosophical challenge some researchers face in reconciling how to go about 'testing' validity in qualitative applications. To address this challenge, some qualitative researchers reject the term 'validity' in favour of other conceptualizations, for example, coming up with alternative terminologies for internal and external validity, such as 'credibility', 'transferability', and 'trustworthiness' (Winter 2000, Golafshani 2003, Onwuegbuzie, Johnson 2006). Easterby-Smith et al. (1991:40-41) argue that "provided the researcher is committed to providing a faithful description of others' understandings and perceptions, then ideas such as validity and reliability can provide a very useful discipline [in qualitative research]" (p.40-41), implying that reconceptualization is not necessarily required in qualitative research. Indeed, while authors such as Tashakkori and Teddlie (2003) list internal and external validity as quantitative concepts, other researchers have shown that the terms can be directly applied to qualitative research (e.g. Winter 2000, Golafshani 2003, Onwuegbuzie, Johnson 2006).

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Table 19 (Easterby-Smith et al. 1991) illustrates the different conceptualizations of validity and reliability in positivist and interpretivist circles.

	Positivist Viewpoint	**Interpretivist Viewpoint**
Validity	Does an instrument measure what it is supposed to measure?	Has the researcher gained full access to the knowledge and meanings of informants?
Reliability	Will the measure yield the same results on different occasions (assuming no real change in what is to be measured)?	Will similar observations be made by different researchers on different occasions?
Generalizability	What is the probability that patterns observed in a sample will also be present in the wider population from which the sample is drawn?	How likely is it that ideas and theories generated in one setting will also apply in other settings?

Table 19: Positivist versus interpretivist viewpoints of validity, reliability, and generalizability (table adapted from Easterby-Smith et al. 1991:41)

Table 19, which shows conceptualizations of validity and reliability from positivist and interpretivist approaches, is particularly fitting for this mixed methods thesis, which (separately) uses both epistemologies in two phases of research (see Figure 23).

From a qualitative point of view, the key considerations for validity of the findings in this thesis are whether the researcher has accurately described and interpreted the responses in the individual and group interviews (descriptive and interpretive validity), and to what part of the population the findings apply within a specified context, setting, or time, as appropriate (external validity, also referred to as generalizability).

From a quantitative point of view, the key considerations for validity of the findings in this thesis are whether the online survey measured what was intended to be measured (construct validity), whether any stated causal relationships were justified (internal validity), and to what part of the population the findings apply within a specified context, setting, or time, as appropriate.

In order to ensure the integrity and overall validity of the research findings, it was important to ensure that the research exercise was designed and executed in a

way that promoted validity. Table 20 outlines the strategies that can be used to promote each type of validity addressed in this research.

Type of Validity	Applied To	Description	Strategies to Promote Validity
Descriptive	Qualitative	The extent to which the researcher's account is factually accurate (Maxwell 1992)	Where the use of multiple observers is not practical, recordings can assist (Maxwell 1992)
Interpretive	Qualitative	"[T]he degree that the participants' viewpoints, thoughts, intentions, and experiences are accurately understood and reported" (Johnson 1997:285)	Participant feedback (stating back to respondents what they said, for clarification) (Johnson 1997:285)
Face	Qualitative, Quantitative	The extent to which the measurement instrument and/or its items are judged at face value to be reasonable and fit for purpose	Consult relevant experts or others for their opinions (Drost 2011, Morgan et al. 2006:52), test via pilots to confirm
Internal	Qualitative, Quantitative	"[T]he degree to which a researcher is justified in concluding that an observed relationship is causal" (Johnson 1997:287)	Methodological triangulation, data triangulation (Johnson 1997)
External	Qualitative, Quantitative	Generalizability to a population	Ensure an appropriate sample, repeat the study
Construct	Quantitative	The extent to which what was intended to be measured was what was actually measured	Ensure that items are unambiguous, consult relevant experts for their opinions (Drost 2011, Morgan et al. 2006:52)

Table 20: Strategies for promoting validity

The strategies used to ensure the validity and reliability of findings in this thesis started with the literature review and carried through all three stages of primary research. The literature review examined different aspects of consumer behaviour related to music downloading to build an initial conceptual framework of relationships and how they fit together. Preliminary interviews were then used to validate and build upon the literature review and form a topic guide for group interviews. Group interviews were used to further validate and test the reliability of findings, and to test the preliminary model developed from the literature review, refining it as necessary. In the qualitative research stages, participant

feedback was used to ensure that interview responses were accurately captured and understood. A quantitative research exercise was then undertaken. In the development of items for the online survey, a pilot was run. Experts were consulted to review the survey before the pilot, to ensure construct and face validity. Feedback was sought from pilot participants to address any issues with clarity and understanding, and experts were again consulted to ensure that the final survey questions were unambiguous and that the items related specifically to the model constructs, as a further check on construct validity.

Triangulation (both methodological and data-based) was part of the research design, and served as an additional validity check for descriptive, interpretive, and internal validity. Methodological triangulation can be used as a convergent validity test of the accuracy of information being collected; "[i]f the data collected using a qualitative method converges with the data collected using a quantitative method, the results from the qualitative approach has [sic] been validated" (Zellman et al. 2010:275). Data triangulation involves "multiple data sources using a single method […and…] collecting data at different times, at different places, and with different people" (Johnson 1997:289).

Reliability is concerned with whether the same findings would be reached if the research exercise was repeated. In quantitative research, internal reliability measures "the degree to which the relationships among test items and test components conform to the construct on which the proposed test score interpretations are based" (AERA, APA, NCME 1999:9 in Morgan et al. 2006:53), or in other words, how consistently certain items measure what is intended to be measured.

While Cronbach's Alpha was used to measure statistical reliability between survey items in construct item groups (e.g. 'trustworthiness', 'freedom of use'), it was not always appropriate to use for analysis in this study. Some survey questions intentionally asked about different conceptual aspects related to a construct (e.g. in the case of the 'trustworthiness' construct in the model, trust, safety, and justification for personal information), to provide richer contextual information as opposed to asking four questions about a single concept (for example about justification for personal information requests). This approach was taken due to the limited number of questions that could be asked within the target survey completion time. By way of triangulation, the qualitative research provided

sufficient additional data to allow for a contextual interpretation of the quantitative findings, addressing reliability, and justifying the validity of both the instruments used and data collected. While sufficient for the purposes of this thesis, future research could use the conceptual framework developed, to extend the survey in order to explore certain constructs in even greater detail.

The final model presented in Figure 29 was found to be valid and reliable, and sets an agenda for others to use in further research. The model is considered valid for 20 to 35 year olds in Canada, the USA, and the UK who have at least a high school education, are engaged in part-time or full-time employment, and download at least one song per month (legitimately or illicitly).

4.7   Ethical considerations

At the time of this research, illicit downloading was not technically illegal in Canada, the USA, or the UK, though often consumers perceived it to be, because it is consistently referenced as 'illegal' in the media. Studies on consumer music piracy were examined to see if they raised any concerns regarding research ethics, and it was found that, while 'illegal' downloading was sometimes perceived as a sensitive topic, it was sufficient to assure research participants that their identities would remain anonymous/confidential.

It is important for readers to note that this study considers legitimate behaviours and attitudes towards legitimate services, and is not a study on illicit downloading, illegal activities, or illegal behaviour, though questions about illicit downloading habits and motivations were asked on occasion. Participants in all stages of the research for this project were assured that they would remain anonymous, and no personally identifying information was required from them.

4.8   Summary

This chapter described the mixed methods strategy employed in primary research, outlined the development of a group interview topic guide and online survey, and described the analysis techniques used for primary research. It also described the limitations in the methods used, and the steps taken to address and minimize these. Further, this chapter commented on additional techniques that could be used to increase participation and completion rates of online surveys.

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Figure 25 shows the progression of this thesis from Chapter 5 onward. Chapter 6 discusses the qualitative primary research findings, revisions to the initial model, and quantitative findings, linking the discussion to the literature review. It then outlines a final validated conceptual model. Chapter 7 discusses conclusions of this research, summarizing its key findings and original contributions, as well as areas for further research.

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        │ Inductive/Deductive │
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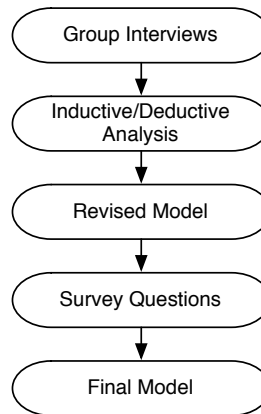
Figure 25: Progression of research from Chapter 5 onward

Chapter 5: Findings and Analysis

This chapter discusses the qualitative and quantitative primary research findings. The analysis discusses whether the proposed relationships for the initial conceptual model in Chapter 3 are valid, and provides insight into interactions with and attitudes toward online music services, including perceptions of value, utility, trust, and online advertising. Accordingly, the analysis is discussion-based, using qualitative and quantitative data to complement each other, noting any statistically and conceptually significant relationships that were found. The qualitative findings are introduced, with a fuller discussion taking place after the quantitative results are outlined.

Revisions to the model made after the qualitative phase are discussed, and an outline of the 9 hypotheses that were developed as a result is provided.

Finally, there is discussion of the validity of the model's construct relationships, and confirmation/disproving of the hypotheses, with a final, validated model being outlined at the end of the chapter.

The ordering of the research phases may imply that one method supersedes the other in terms of the weight of its findings. It is worth clarifying that the qualitative and quantitative phases are intended to complement and corroborate each other, to provide a richer understanding of the data.

On its own, the qualitative data is useful but does not provide a complete picture for the purposes of this thesis. It identifies and delves into motivations, feelings, and ideas, but does not measure these in a quantifiable way; nor does the quantitative data on its own provide a complete picture. It measures the strength of attitudes and quantity of demographics, but by its very nature is limited in its ability to provide an in-depth contextual view. Together, these two methods complete each other in this thesis, and provide the contextual understanding that this is aimed for by this thesis.

5.1   Qualitative findings

Ten group interviews were conducted between March 2010 and July 2010, in Toronto, New York, and York, England. Overall, the group interview gender breakdown was 58% male, 42% female. The aim of the group interviews was to:

- Validate and provide further insight into the secondary research outlined in the literature review

- Provide a basis for the refinement of the initial conceptual model proposed in Chapter 3

- Provide a framework for an online survey to validate the model

The topics addressed in the group interviews included attitudes towards services and advertising, perceived value, perceived utility, switching motivations, the consumer decision making process, and service quality. The discussions also explored the following topics in order to provide additional contextual understanding about how consumers interact with music online individually and socially, and their motivations for doing so:

- How the participants search for, discover, and interact with music online

- Examples of positive and negative experiences with music services

- Whether extra features are seen as offering added value

- Registering for online services and providing personal information

- Motivations to file share or not file share, and the influence of various norms on illicit downloading decisions

- Ideal hypothetical online music service

- Attitudes toward online advertising in general, and what makes a good or bad advertisement

- Sentiments about online music communities, and online social interaction related to music (e.g. including via social media)

- Awareness of and openness to ad-supported services

Findings are ordered based on the constructs of the initial model proposed in the literature review, with additional sections included for other relevant findings that emerged out of the interviews.

Table 21 shows the codes used in this chapter for quotations from the group interviews.

Code	Country	Demographic
T1	Toronto, Canada	High school students
T2	Toronto, Canada	Workers in mid-20s
T3	Toronto, Canada	Workers in mid-20s
T4	Toronto, Canada	High school students
N1	New York, USA	Student and new graduates
N2	New York, USA	Music industry interns in early 20s
N3	New York, USA	Workers in early 20s
N4	New York, USA	Workers in late 20s and early 30s
Y1	York, England	First year undergraduates
Y2	York, England	First and third year undergraduates

Table 21: Group interview codes

5.1.1 Perceived usefulness

Perceived usefulness of a music download service was defined in the initial model as the degree of ease a consumer associates with the use of the service.

In the context of goal achievement and its relationship to attitudes toward an ad-supported music download service, perceived usefulness was found to relate to music catalogue size, ability to freely use a downloaded file, speed, and features available on a service.

Service characteristics identified by participants as affecting perceived usefulness were the breadth and depth of the service's music catalogue, freedom of use of the downloaded file, speed of download, and to some extent, the service's features.

The group interviews revealed that the primary (core) utilitarian value of a music download service is driven by the motivation to find and download music, choose good quality music to download, and to be able to share (downloaded) music with friends. This is enhanced by the service being aesthetically pleasing (not

cluttered by ads or all the service features being offered) and by the service being easy to use. These drivers can influence attitudes toward a service and therefore the selection of a service during the decision making process, because they are related to the user's primary goal of finding music to download.

What could be called the secondary (nice to have) utilitarian value in an online music service comes from ease of use, the ability to find additional information about artists (e.g. bios, tour dates), or perform actions such as purchasing tickets through the service. Reliability is important, and consumers want to trust that recommendations made by a service are accurate and reflect their tastes, and that the information shown about the song and artist are accurate. Such functionality was seen as potentially useful, but not essential in a service, because it addresses secondary (lower importance) motivations and needs. For example, consumers use streaming and download services to obtain music, not concert tickets.

These 'minor' attributes can influence choice in the final decision being made (Fletcher 1987), but they were found to be of only marginal importance in this case.

This view of primary and secondary utilitarian value for music services is an interpretive view that emerged out of the data, rather than primary research participants being asked to categorize aspects of services explicitly.

5.1.1.1 Music catalogue

Participants across all three countries searched for and discovered music in a variety of ways – via search engines, streaming music services, legitimate and illicit download services, blogs, online forums, FTP sites, music press, e-newsletters, YouTube, Facebook, song recognition software, and radio, television commercials, and films.

Most participants said that legitimate services had a reasonable selection of music, but they felt that smaller acts and independent acts were not well represented, and that it was difficult to find music considered more niche, even on market-leading services with substantial catalogues. One high school student from Toronto commented that, "iTunes has a lot of mostly just mainstream music. If you want more obscure bands, it's really difficult to get that off iTunes" (T4).

This echoed the sentiments of participants from all three countries, who felt that legitimate services catered to predominantly mainstream tastes.

While many of the participants did listen to Top 40 music, they all also expressed a desire to find music outside of Top 40 tastes, although a number of them said they did not regularly search for non-mainstream music. The participants said they would like a music service to have as wide a selection as possible, with many commenting that they felt some of the most popular legitimate services (e.g. iTunes, Spotify) did not have the catalogue depth and/or breadth they would like, despite services such as iTunes having over 20 million songs available (as of late 2011). "A lot of people I want to know about aren't on iTunes," said one 15 year-old student from Toronto (T4). A British university student felt that Spotify was "missing some stuff [and] some bands" (Y2) and his peers added that the service did not always have all of an artist's albums, which they found frustrating at times.

Another high school student from Toronto added that she liked to search for music on YouTube because she felt she could find more independent and obscure music to listen to, particularly made by people her age.

Many participants also said that illicit services were appealing in part because of their typically much wider selection of music, which is consistent with academic and trade literature (e.g. Plouffe 2008; IFPI 2011).

While a large and broad music catalogue was identified as ideal, participants said a catalogue that had most but not all of the music they were looking for would be considered adequate. Most (particularly illicit service users) said that a service that only had a few songs of interest would not be worth their time because of the effort they would have to put in searching to find the songs they wanted that the service actually had.

5.1.1.2 Convenience, freedom of use, speed

In the initial model, convenience was included as a generic concept in need of refinement. The group interviews identified two themes related to the concept of convenience: freedom of use, and speed of downloads.

Participants expressed a desire for flexibility, and the freedom to use their music downloads in the way that they choose, such as being able to transfer their downloads to any of their portable listening devices. As one participant said, expressing a common view, "I don't see why there should be limits to what you can do with [a file]" (Y2).

The British undergraduates said they frequently encountered problems with DRM when they bought CDs and tried to rip them to their computers, with one commenting that, "Because it started getting annoying, I was like, I'll just start using illegal software" (Y1). Another British student said that he paid for a download and found he could not play it on his portable devices, which upset him. While not mentioned as common in the North American group interviews, such problems were not unique to the British participants.

Across all three countries, most of the participants did not burn music to CDs, and the vast majority of participants owned only one or two portable listening devices that they listened to music on aside from their computer.

There was a strong desire amongst participants to have complete freedom of use, but failing that, a number of them felt that restrictions that did not actually 'get in their way' would be tolerable (i.e. if the maximum number of devices they were allowed to transfer a song to exceeded the number of devices/computers they listened to music on). This is consistent with literature on DRM which finds that while DRM is disliked, it is tolerated if it is transparent in the sense that it does not interfere with a downloader's use of the file in a perceptible way (i.e. they are not prevented from listening to their downloaded music).

Speed (page loading and song downloading) was cited as an aspect of convenience that contributed to a positive service experience.

Participants said they would like any service they use to have a fast download time, but the students in particular noted that download speeds were often related to the speed of their own Internet connections, as opposed to the service they were using. They were less concerned about how long it would take to download a song if they had other things to do and other songs to look for, and some participants said the length of time they were willing to wait depended on how badly they wanted a song, or what mood they were in; most of the time they were not too bothered about having to wait for a download because they could do

other things while they were waiting. This is consistent with literature on the value of time and online delays (see Section 3.1.3), which says that people are risk averse where loss of time is concerned, but that the perceived cost of waiting is dependent on the situation. It is also consistent with Dabholkar and Sheng's (2008) findings that mood affects perceived wait times.

Download speed was perceived as the elapsed time from choosing to download a song until being able to play it, not necessarily the speed of the Internet connection. For example, a user might have a fast Internet connection, but be forced to wait a set length of time for an advertisement to play before being able to download and access a song.

Overall, most of the participants expected a song to download in one minute or less. Some had an expectation of immediacy, with one participant who used torrents almost exclusively to download high volumes of music saying she used torrents because "I feel like listening to something and in five minutes I can have it" (T2).

5.1.1.3 Features offered

The group interviews revealed that consumers did not place much value on extra or 'added value' features on a service. To paraphrase, the general sentiment was "I just want to download my music and get out. The rest is just extra, nice to have. I might use it if I'm bored or happen to be interested, but I'm going there to get the music".

While some aspects of the reviewed literature did suggest that extras were not much valued in their own right on paid services (e.g. Amberg, Schröder 2007, Kunze, Mai 2007), based on other aspects of the literature (e.g. Fletcher 1987, Walsh et al. 2003, Yang et al. 2004, Amberg, Schröder 2007), it was anticipated that consumers would be incentivized by informative, entertaining, and convenient features on free services, such as access to extra information about artists. Instead, participants said that they already used other sources to find out information about artists, such as Google, Wikipedia, MySpace, or the artists' own websites. As one American woman said, "the bios are kind of cool on Pandora. I sometimes read them, but I wouldn't say that I actually use them" (N4).

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There were some features that were valued slightly more than others for their utility. These included recommendation features, the ability to create and save playlists, the ability to rate songs and see ratings (e.g. 'thumbs up' or 'thumbs down' on Pandora, number of stars on other services), and the ability to sample music before downloading.

Participants said they often knew what they were looking for online, but still found music recommendations on services useful for discovering new music. Recommendations and reviews were mentioned as contributing to a positive service experience, when the recommendations were an accurate reflection of the participants' musical tastes, and where the reviews were insightful or practical and not simply insults aimed at other reviewers. In-service recommendations appeared to hold more utility than other features, but the value of this feature was not clear, as it was a feature that the participants often said was helpful, but it did not make or break the service experience, and some said they simply used it as a way to pass time.

The older, working Canadians had many ideas for features they said they would find interesting in a new service, many of which they said current services did not offer. These ideas focused on utility and convenience, with suggestions including being able to purchase concert tickets through the service. "If I could buy concert tickets on iTunes, that would be pretty cool," said a Toronto man (T2). Another participant in his group suggested that "if you could buy an album and get first choice on tickets, that would be pretty cool. Or if you buy tickets and you get the album". In another group, an American participant suggested that it would be useful if he could choose what bands he wanted to follow on the service, and a window or widget in the service could tell him when the bands would be in or near his city. The ability to purchase artist merchandise through an online music service, however, was not perceived has having value, which is consistent with findings by Amberg and Schröder (2007).

The group interviews revealed that the value of music service features lies in their utility, and simply having a wide range of features available to choose from does not create value if the features do not help users to achieve their motivational goals, nor does the simple existence of features increase the perception of good service quality. This finding was consistent for both paid and unpaid services.

It could be that extra features, while not particularly valued on their own, hold more value if they are used as additional, marginal criteria by which to judge a service when making a choice between similarly ranked services. Literature on music services does not appear to have examined this specifically, but Fletcher (1987:27), writing about choice in a purchase context of a consumer electronic device, says that when "products are similar on all important criteria…relatively minor attributes which have not previously been considered can sway the actual brand choice".

While various studies (e.g. Amberg, Schröder 2007, Kunze, Mai 2007) suggest that service 'extras' do not seem to be highly valued on their own (e.g. playlists, artist information, links to communities/forums related to interests), researchers have shown that they can offer some form of added value to consumers in terms of playfulness (active, intrinsic, self-oriented value), and extras could be used in a marketing context to entice consumers to use particular services (e.g. Fletcher 1987, Walsh et al. 2003, Yang et al. 2004, Amberg, Schröder 2007). However, Fletcher (1987:27) found that "extra 'gimmicks' or product features often detracted from the simplicity that buyers preferred".

5.1.2 Perceived ease of use

Perceived ease of use is defined in the initial model as the degree of ease a consumer associates with the use of a service. In the group interviews, ease of use was found to also influence perceptions of a positive or negative service experience, as well as perceptions of efficiency such as the value of time (see Section 5.1.3.4). For example, a service that is not easy to use could frustrate consumers in their attempt to achieve their goal of downloading music, thereby also decreasing the perceived utility of the service.

A simple, uncluttered interface was described by participants as an important characteristic contributing to a positive service experience. Participants said it was important for a service to have an intuitive user interface that made the service easy to use, showing only the features and information that they cared about. "The nice thing about Spotify and Google is that there's not a lot of stuff on the screen," said one British university student (Y2), with a Canadian participant saying, "The more buttons there are, the less happy I am" (T3).

Chu and Lu (2007) found that for online services, the more comfortable consumers are with technology, the less important ease of use is as a determinant of satisfaction. Davis (1989:333) also notes that in TAM, "usefulness [is] significantly more strongly linked to usage than [is] ease of use". Many of the participants said they used (but were annoyed by) services that had unintuitive, cluttered interfaces, so this was identified as an area for exploration in the quantitative research phase, in order to determine whether usefulness (in this case, related to obtaining desired music for free) was considered more important than ease of use – i.e. if music is being given to users for free, would the service's ease of use be a less important consideration.

5.1.2.1 Search capabilities

Good search functionality and relevant search results were identified as important. However, while this characteristic was initially thought to relate to ease of use, it became apparent that it was actually much more of a utility and an implicit/inherent part of a service, in that search functionality is used as a tool to find music. If a user is unable to find music that is in a service's catalogue, or the service fails to display relevant search results, that seems to reflect poor utility far more than ease of use.

As one paper notes, "If the purpose of a shopping trip is to locate a particular item, then the search process tends to be of a utilitarian (problem solving) nature; if the trip is more fun oriented, then the search strategy involves more hedonic (experiential) behavior" (Kulviwat et al. 2004:251).

5.1.3 Attitude

Attitude can be defined as an "overall evaluation" (Ajzen, Fishbein 1980:55) involving beliefs, perceptions, and opinions about an object or behaviour, or "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question" (Ajzen 1991).

The expression of positive and negative attitudes is evident throughout this chapter, but this particular section focuses on participants' positive and negative experiences with online music services, as well as their attitudes toward online advertising.

5.1.3.1 General characteristics of positive experiences

The perception of a good service experience is important for a number of reasons. As discussed in the literature review, a good service experience can reduce cognitive dissonance and provide a disincentive for a consumer to switch to an alternative provider.

Participants were asked to name music services that they considered to be 'good', why they considered them to be good, and to describe their positive experiences with those services. The services could be paid or unpaid, illicit or legitimate, streaming or download.

The responses were consistent across all three countries. Services that the participants liked and expressed positive attitudes about were described as free (though free was not a requirement for everyone), fast, simple, straightforward, easy to use, of reliable quality (see Harris 2011b), and having a wide selection of music offering most of the songs they wanted. These services included paid (e.g. iTunes), unpaid (e.g. Spotify), illicit (e.g. LimeWire), legitimate (e.g. iTunes, Spotify), streaming (e.g. Spotify, Pandora), and download (e.g. iTunes, LimeWire).

Receiving the correct file, intact, and glitch/virus-free was important to participants. "Finding exactly what I want, high quality, without it being screwed up or mislabelled or [having] DRM" is important, said one file sharer from New York (N3), though thresholds for quality appear to be correlated with a listener's age (Harris 2011b). Poor quality downloads, mislabelled downloads, viruses, malware, and being bombarded by pop-up advertising are problems that many illicit downloaders encounter. In the UK, 79% of music downloaders encountered at least once such problem while using illicit services (BPI 2010).

5.1.3.2 General characteristics of negative experiences

Many of the negative experiences and attitudes participants had with music services stemmed from the use of illicit file sharing services. Almost all of the participants had at some point encountered problems with computer viruses as a result of using file sharing services, downloading virus-laden files, and fake (intentionally mislabelled) files, and as one British university student put it, "downloading things that aren't what they say they are" (Y1). The consequences

of using those services were severe for some participants, with viruses disabling their computers entirely, or rendering them nearly unusable.

Poor audio quality, even from paid services, was also cited as a negative experience. Some participants mentioned they were not entirely happy with the sound quality (bit rate) offered by paid services such as iTunes, saying that tracks were often ok for listening to on portable devices, but not of high enough quality to sound good on better speakers or a stereo system. As a more extreme example, a British undergraduate student recounted his frustration with the market-leading music download service, saying "I downloaded a track from iTunes and about five times during the piece, there was like…it started crackling at different points" (Y2). He said he contacted iTunes through the channels outlined on the service and never heard anything back, which added to his negative experience.

Canadian participants also mentioned fake files, poor sound quality, and files that did not play as factors contributing to a negative service experience. Said one participant, "The reason I don't use LimeWire anymore is because every single time I felt like there was all this spyware embedded, all these viruses and stuff. Now, when I do download, if I'm looking for a particular track, I usually just download the whole CD, using Bit Torrent or something" (T3).

The American participants held similar views to the Canadians and Britons. They felt that not being able to find songs they wanted, the perception that it takes too long to get a song, poor labelling, viruses, pop-up advertisements, and legitimate services having what a few participants felt were "only the most popular songs" all contributed to negative user experiences for them. Additionally, a few participants mentioned connection timeouts as problems on paid and unpaid services, leaving them with unplayable or incomplete songs. "What's the point paying for it if you're going to have problems downloading it?" said one participant (N3).

In discussing their negative experiences, the groups touched on topics related to the literature review themes of trust, reliability, switching motivations, value (of an object), the value of time, quality, perceived costs, perceived risks, cognitive dissonance, customer service and satisfaction, perceived convenience, perceived selection of products (music), and the ability of a service to deliver on

its promises. The findings from the group interviews are consistent with literature on service quality dimensions, and how performance in dimensions affects a person's perceptions of a service (see Sections 3.1.5.2 and 3.2.2).

5.1.3.3 Attitudes toward advertising

The links between attitudes toward advertising and attitudes toward service usage are discussed here from the perspective of users' positive or negative experiences that arise as a result of displayed advertising, and how that affects their perceptions of a service. In the initial model, the construct for attitudes toward advertising is linked directly to attitudes toward service usage because in the literature on attitudes toward advertising, the display of advertising is primarily related to aspects such as irritation, as opposed to utility or ease of use.

When asked about their opinions of online advertising in general, respondents across all three countries expressed nearly identical views, across all age groups and backgrounds. They expressed strong negative views towards most online advertising, with clutter and intrusiveness being most disliked by the participants.

The participants said that online advertising often got "in the way" of whatever they were trying to do online, and described online ads as "predictable", "annoying", and "irritating". They felt that advertising clutter contributed to sensory overload, with websites using an increasing number of pop-ups or techniques such as flashing ads or ads with sound to try to capture their attention. The participants said that as a result, they habitually engaged in a high degree of subjective filtering. A 26 year-old Canadian woman who worked in graphic design said, "It's like being back in the '40s when everything was in capital letters and the ads all yelled at you, except now it's just a different format, it's on your screen" (T3).

The participants said they were conditioned to ignore most online advertising, with comments such as "I generally ignore them", or, as one British student said, "I've got to the stage with my browsing where I just zone into the centre of the screen and anything which is flashing at the side of the screen, I just ignore" (Y2). "When your eyes are intentionally drawn away from the content [you're looking for], it kind of makes the experience unpleasant," said an American participant (N1).

Most said they would rather have a few targeted ads if the website they were on had to have advertising. They said this would provide a better experience, and be better for advertisers because then they might be more likely to pay attention to the ads.

While consumers may be more receptive to targeted advertising (as suggested in the literature review), it is not necessarily a standalone answer, because, as a 28 year-old professional woman from New York phrased it, "We're already so turned off to them (online ads in general)" (N4).

Clutter was perceived to be far more annoying and unpleasant than being presented with irrelevant advertising, but even when presented with relevant advertising, people said they generally ignored most of it. Said one participant, "I hardly ever click on it even when it's targeted to me" (N3).

While the group interview participants appeared to hold largely negative views about online advertising, some said that they did look at and in some cases interact with it, and they were more likely to do so if it was presented in a more aesthetically pleasing way. A number of participants suggested they would be more open to advertising if websites and advertisers put more effort into making their advertisements appealing, and more "legitimate-looking", which is consistent with literature on the presentation of online advertising (e.g. Cho, Cheon 2004, Ha, McCann 2008). "It's really easy…too easy, to just switch sites, so they should be aware of that, and not try to piss me off," said one participant (T3).

Participants said that they would not purchase goods or services directly as a result of clicking on an ad. Instead, they preferred to go to the company's website directly, or to the company's physical store to obtain goods of interest. The participants who did click on ads did so rarely, and did so because they wanted to find more information about the products or services featured (e.g. pricing, available styles, technical specifications), as opposed to wanting to buy anything. These online sentiments are consistent with research on offline advertisements, where consumers said they would not be comfortable making a purchase directly via an address or phone number shown in an ad (Shavitt et al. 1998).

Respondents in all three countries shared very similar views about what they perceived to be 'bad' advertisements, with trustworthiness and intrusiveness being key themes.

They expressed distrust for advertisements telling them they had won something, and in particular, mentioned advertisements where they had to play a game, such as shooting virtual ducks to win a 'prize'. Some participants said they sometimes played such games to pass time when bored, but did not complete the game for fear of being taken to suspicious websites. As one said, "I don't know if any of these things are potential security problems for my computer" (N1) and another said, "I know it's probably going to be a crappy trick site [that I get taken to]" (N1). A few participants suggested that vouchers as a prize would be more "believable" (lend more legitimacy), and that they felt a legitimate company would take them to its own site to play a challenging game before giving anything away for free.

A Canadian high school student said that when he used reputable websites and saw advertising that seemed out of place (e.g. for weight loss, teeth whitening, and hair growth) he thought less of the website/company. Another Canadian high school student articulated this sentiment well in a preliminary (in-depth) interview, where he mentioned his experience using a well-known encyclopaedia's website for a school project, and said he thought less of the company particularly because his school paid for access to the well-known educational brand's service, so he expected it to have more legitimate advertising, consistent with an educational website that a school would subscribe to.

Participants mentioned concerns about being redirected to suspicious sites or getting viruses from clicking on ads that looked suspicious, relatively low quality, or potentially untrustworthy. As one New York participant said about annoying advertising, "I feel like clicking on it would make more of it happen" (N1). The participants also said that looks were important and affected how much they trusted an ad, though they were not asked specifically how this affected their trust for the website the ad was on. Said one of the British university students, "If you're bored and have lots of time, you might be more tempted to click on the ad if you actually trust it" (Y2).

While the participants did not seem to hold positive views towards most online advertising, they did seem to have a tolerance for it, which they said disappeared when the advertising interfered with what they had set out to do using a website or application. They all disliked pop-up advertising in particular, and strongly. "They take forever to go away and you don't really want what they're selling you in the first place," said one British university student (Y1). There was also a

strong dislike for advertisements with sound, because as another British student put it, "It's annoying and you have to try to find out which one it is and where to switch if off" (Y1). Audio and rollover ads were "annoying" and "distracting", they said, because they directly interfered with the user experience.

Participants disliked the idea of in-song audio ads in downloaded music (ads embedded into the song after the download takes place), with most saying an ad voiced by the artist would make the artist a "sell-out" and would affect their artist-fan relationship. They were more receptive to public service advertising (i.e. artists voicing short ads for charitable causes) but felt overall that any sort of in-song ads would ruin their listening experience, and that the "novelty" of an artist-voiced ad would wear off quickly. "You don't want to hear that, you just want to hear the song," said a high school student (T4). Said one working Toronto participant, "If it's them actually getting paid to put a spot in their song, I would never listen to that band again" (T3).

The group interview participants said that pre-roll video advertising was intrusive, but their tolerance of the length was relative. As an example, they said a 1 minute video advertisement for a half hour television show would be acceptable but a 20 second video advertisement before watching a 1 minute video clip would not be acceptable. They also said they preferred advertising between every few video clips or songs, as opposed to before or after each piece of content. Said a 26 year-old male professional from Toronto, "You might want to jump from clip to clip, and you don't want to have to wait 20 seconds for each one. I don't want to watch three or four different advertisements when there's only two minutes of content I want to see. The worst is when you watch the ad, and then you find out you've clicked on the wrong clip" (T2). Another participant said, "You just want to listen to the song, you don't want to sit through 20 minutes of ads before you can hear the song" (T4). Yet another participant mentioned that his tolerance was affected by the nature of the medium he was using to view content, remarking that online, "you're not watching TV, you're searching for that specific video you want to watch…but they're like, no you have to wait [for the advertisements to finish first]" (N1).

Google and Facebook were frequently mentioned by participants as examples of websites that had advertising they could tolerate. They said they preferred these ads because they were limited in number, usually relevant, and they felt they

were not being forced to notice them, but could choose to notice them. While participants said Google, Facebook, and Gmail had advertising they felt was more targeted and relevant, "sometimes interesting", and not over-crowded, some said the targeted advertising on Facebook and Gmail felt "a bit Big Brother" or "creepy", especially when they could see that the ads they were being shown were specifically related to content in subject lines or messages in their inboxes. One participant mentioned a specific personal experience, where such targeted advertising was still irrelevant to him because Gmail used mined keywords from emails in his inbox for a subject he was not actually interested in (his friends invited him on a fishing trip so he was shown ads for fishing and camping products).

These findings on online advertising are consistent with literature on sensory overload and consumer aversion to ad clutter and irritation in Section 3.3.5 (Cho, Cheon 2004, Burns, Lutz 2006, Ha, McCann 2008, Cheng et al. 2009). They are also consistent with literature on the value of time, and show how the perception of 'bad' advertising can affect the user experience, and attitudes toward both the ad and the service.

It was clear that while consumers have trust issues with many file sharing services because of viruses hidden in file downloads, they also have concerns about trust that centre on the advertising on the websites and services that they visit and use. Perceptions of trustworthiness and safety are important considerations because they have the potential to influence consumer interaction and engagement with a website or service.

It is unlikely that a legitimate service would distribute virus laden music files, however, as was reported in early 2011, even sites that consumers could legitimately perceive as safe and respectable can display advertisements that are (unintentionally) laden with malware. The London Stock Exchange is one such example of a respectable site that inadvertently transmitted malware and viruses to visitors' computers, due to their third-party ad-supplier carrying infected stock. As Graham Cluley of the Internet security firm Sophos said about the issue in a BBC News article, "Unfortunately when an infection does get through it's likely that the users will blame the website, not the ad network" (BBC News 2011).

Participants in all three countries said they were more receptive to online advertisements featuring brands they knew, products they felt they might actually want to buy, and ads they perceived to have trustworthy content and aesthetic qualities (e.g. no flashing ads with bright colours). "I don't mind ads if it's something I might actually want," said a British university student (Y2).

These findings are consistent with Taylor (2009:413) who cites research confirming that "consumers are more receptive to digital advertising from marketers they trust". Okazaki et al. (2007) found there is a link between credibility and trust, and attitude toward a website and brand.

Most participants said having to consume a small amount of advertising in exchange for receiving free music downloads would be a fair exchange, if the advertising was not intrusive.

Literature (though limited in scope) mentions both positive and negative perceptions of online advertising, with most of that which was reviewed taking a pessimistic view towards the topic. While the group interviews, like the literature, did identify some positive aspects and potential for online advertising, the findings in general supported literature related to negative and pessimistic attitudes.

Cheng et al. (2009) say that consumers have a generally positive attitude toward Internet advertising, though Goldsmith and Lafferty (2002:324) found that online ads were generally not well-liked. While researchers have found that frequent Internet users, men, youth, less educated, and less wealthy people have more favourable attitudes toward online advertising than others (Shavitt et al. 1998, Korgaonkar, Wolin 2002, Wolin, Korgaonkar 2003), this was not entirely confirmed by the group interviews. This could be due to the qualitative aspect of this stage of research (where the other researchers' findings were mainly quantitative), the age of the studies in question, or the participants in the group interviews generally being educated and middle class. Even so, there was no clear evidence from the group interviews that men or youth were more tolerant of online advertising. The respondents overall displayed quite negative attitudes toward it. This is investigated further via the online survey (see Section 5.4.2.4).

5.1.3.4 The influence of perceived ease of use on perceived usefulness

The group interview findings indicate that, in accordance with the Technology Acceptance Model, perceived ease of use does influence perceived usefulness. According to the group interviews, however, for a free, ad-supported music download service, utility appeared to be more valued by participants than ease of use (consistent with Davis 1989). For example, ease of use made a service more useful, but utility was more important than ease of use. This was not a conclusive finding, and was an area for further exploration in the online survey.

5.1.4 Intention

As the literature review discussed, it was important to explore intention, norms, and previous behaviour in the group interviews to determine whether or not these influence the decision to use a legitimate free, ad-supported service.

A wide range of downloading habits was represented in the group interviews, from people who only used paid download services, to people who only streamed music, to people who downloaded more than 500 songs a month without paying for them. The range of illicit downloads in an average month was anywhere between 10 and 1000 songs per person, with most downloading around 25 songs per month illicitly (medium volume downloaders). Most of those who downloaded illicitly said they paid for at least some songs through legitimate channels, with a range of 1 song to 50 paid songs a month across the groups. Some participants illicitly downloaded sporadically, either because they were light downloaders, or downloaded infrequently but in high volumes.

Participants expressed an appreciation for the variety, opportunity for discovery, and the convenience that online music services offered. When asked why they used illicit music download services, consistent with the literature in Chapter 3, the most common answers in all three countries were that they were free, it was easy to do, and the music was there for the taking. Some of the British and Canadian participants said they downloaded music illicitly because they were unable to find what they were looking for on paid sites or in music stores, or because they were fans of music from a foreign country that they could not buy in their own country, or they were trying to find older songs that were no longer sold in stores and were not sold on online services.

Cost was important to participants with a keen interest in music, particularly students. The high school students who participated tended not to get an allowance from their parents, and some were too young to obtain regular employment, so their only way to purchase music was if their parents gave them money or they received money or gift certificates as presents. The participants who downloaded high volumes of music illicitly said they would not be able to afford their music habits if they were to purchase all the music they downloaded. A Canadian participant who was working full-time said, "It's like a thousand songs [I'm interested in], and I'm not going to sit there and pay a thousand dollars" (T2).

It was made clear in the group interviews that consumers will pursue the most convenient service options that fit with their criteria (i.e. financial, ethical, large catalogue), and since individual circumstances differ, it can be difficult to make generalized statements about intention, as subsequent sections in this chapter will discuss.

5.1.4.1 Norms

This aspect of the topic guide was explored from the perspective of participants' perceptions of norms, and whether subjective, personal, injunctive, and explicit norms had an influence on participants' downloading intentions (illicit or otherwise).

The British students said that most of their friends downloaded illicitly, although they knew a few people who paid for music exclusively, either because they had moral reasons for doing so, or were unfamiliar with file sharing technology. They generally felt guilty about illicitly taking music for free, but as one student said, "It's just so much that I listen to…to buy it all would just be ridiculous" (Y1). Some of their friends did not like that they illicitly downloaded, but, said one woman, "I don't have as much money (as them)", with a student in another group adding he thought that people who criticize are "very petty people" (Y2). They felt that when it came to illicit downloading, "No one seems to take it particularly seriously," (Y2) and that it was "like trying to tell someone to stop smoking" (Y1). "It would be different if it was a shoplifting habit or something…that, you've got to stop…It's kind of the same in principle, it's just not" (Y1).

The high school students that were interviewed all downloaded music illicitly and said that almost all of their friends did so as well. They said their friends did not

care about their behaviour, and if their friends asked them to stop, they most likely would not stop. With this group in particular, it seemed that their friends' downloading habits helped them to justify their own behaviour. As one 17 year-old girl said, "They get all their music from the Internet. It's the place to get music now" (T1).

The majority of the high school students felt that illicit downloading was a normal behaviour. "Music is everywhere…you kind of feel that it's almost free for everything because you can turn on the radio, go through the streets, you can already hear it," said a 17 year-old, with a 15 year-old adding that music on the radio is free, so why should it not also be free on the Internet (T4). While they acknowledged feeling some guilt about taking music without paying for it, another student added that his way of dealing with the guilt was to "just dismiss it to the back of [my] mind," (T4) with other participants agreeing, saying they still wanted the music without having to pay for it, so instead of choosing to stop downloading, they chose to assuage their guilt in various ways, which is consistent with literature on neutralization theory and ethical considerations related to music downloading (e.g. Freestone, Mitchell 2004, Levin et al. 2004, Lysonski, Durvasula 2008, Shang et al. 2008).

Asked what their friends would think if they suddenly stopped downloading illicitly, a student said, "They'd probably think I was crazy that I'd stop, because if I was to start to pay for all the music I download, that would be kind of ridiculous" (T4). Overall, the high school students said that their friends would think they were making a strange decision if they stopped downloading illicitly.

Amongst the working Canadians, who were in their mid to late 20s, the vast majority downloaded music without paying for it, with one 26 year-old male saying illicitly downloading music is "like driving a car, it's so commonplace" (T2), and another, a professional musician, saying, "I'm not as conflicted as I should be" (T3). One man said his friends teased him because he paid for music.

Amongst this group, there were no guilty feelings about downloading, and they did not care about what their friends thought of their illicit downloading habits. The professional musician commented that, "They haven't figured it out yet, how to make [paying for music] an enjoyable experience. Right now getting it for free is way more fun" (T3).

In contrast, many of the Americans did not download illicitly or file share. This was particularly evident in the group of music business interns, and a group of professionals in their late 20s and early 30s. While the younger students and workers said that most of their friends downloaded music illicitly, the older professionals said that most of their friends chose to pay for music downloads. One 23 year-old male, a recent college graduate and frequent illicit downloader, said he recently told himself, "I'm not a college student anymore, I should actually stop stealing from these people" (N1).

The younger people interviewed said that many of their friends downloaded illicitly, and while the music business interns explained their anti-file sharing views to their friends, that did not influence their friends' downloading habits. Of those who were not in the music business, if their friends disapproved of their illicit downloading, they said that would not change their behaviour.

Despite illicit downloading and file sharing appearing to be common behaviour amongst students, particularly high school students who have limited or no disposable income, there is still a part of the population across all age groups (apparently increasing with age), that feels this behaviour is morally wrong, questionable, and even unacceptable. This was found to be true even amongst college and university students, who, while they may have more income than high school students, generally still have limited means. There was also a very small number of people in the group interviews who did not file share or illicitly download music because they were unfamiliar with ways of doing so, so either purchased their music online or in stores, or had friends download illicitly for them. Many participants indicated that they tended to have more sympathy for smaller independent artists, but would nonetheless illicitly download their music.

In general, many of those interviewed felt their behaviour was more acceptable because they felt artists were able to make money in other ways, such as merchandise sales or touring, which they believed was becoming the main source of income for many artists. Others felt that some artists were "making so much money anyway" that they did not feel guilty about downloading their songs for free. Across all three countries, the willingness to compensate artists in other ways was expressed. Said one man from New York in his 20s, "I like to support them in other ways…see them live and buy their merchandise and stuff…I'd rather support them that way than paying for the music" (N1). A 21 year-old

British student said, "If I like them enough I'll go to see them at a concert, and pay to see them. I don't mind doing that at all because you can't illegally download that, and I feel good after I've been to a concert" (Y1). Another British student said, "The experience of going to a concert is better than the experience of spending money to buy a song that you might not listen to that much" (Y1). A 26 year-old Canadian said, "I feel better when I know I'm going to support them at shows…I'll spend much more money on concert tickets" (T3).

In terms of descriptive norms (perceptions of how other people are actually behaving, whether or not it is approved of), the vast majority of group interview participants perceived their friends and peers as engaging in illicit music downloading activities. In terms of injunctive norms (behaviours perceived as being approved of by other people), most people perceived that their friends and most others had no opinion about their downloading habits, as opposed to their peers actively encouraging or outwardly approving of such behaviour. However, almost everyone interviewed had at least one friend who did object to their illicit downloading. Subjective norms were found not to be an influencing factor, because participants said that even if their close friends (valued others) asked them to stop downloading illicitly, that would not change their downloading behaviour.

It would appear that illicit downloading is largely seen as socially acceptable from a peer point of view (relating to injunctive and descriptive norms), particularly amongst younger age groups. However, such behaviour still presents a conflict from a moral point of view (personal norms), though this conflict was shown to be stronger for some than for others. Even ethical idealists, who have personal norms that are strongly anti-piracy (and thus no internal conflict related to illicit downloading), remarked that they felt many people, including their peers, saw file sharing as acceptable, even if they did not themselves (see Section 3.4.3).

In terms of personal norms (the standards one has about one's own actions), many participants said they felt guilty about their actions, but, consistent with other researchers' findings, they lowered their personal standards to accommodate their wants (Freestone, Mitchell 2004, Levin et al. 2004, Lysonski, Durvasula 2008, Shang et al. 2008, BPI 2010), justified their behaviour by feeling that they were compensating for it by attending concerts, or argued that they did not have the financial means to purchase the music they downloaded.

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Interestingly, a variety of people working in the music industry were represented in the group interviews, including musicians, (part-time) DJs, recording engineers, and music business practitioners (the interns also ran their own independent artist management companies). While one might assume that those participants would have a clear anti-piracy viewpoint, the only ones that expressed such a view were the music business interns. The musicians, DJs, and recording engineers did not express any strong negative views toward the practice of illicit downloading, and engaged in the practice themselves.

In terms of explicit norms (which are written or spoken of openly), the findings were inconclusive. While face-to-face, people may tell someone they know (and presumably trust) that they download music illicitly, there appears to be a hesitation to say so openly in some situations, and to people unknown to the person making such an admission. People still recognize that this behaviour is considered unacceptable by some, and may come with consequences, although admittedly, some of the participants thought that there were laws against illicit downloading that do not actually exist (perhaps a testament to anti-piracy PR efforts).

The findings did not indicate that illicit downloading is an openly embraced behaviour in society as a whole, so it cannot be said yet that it is normal in wider society. However, it was largely seen as normal and acceptable amongst younger people (in the case of this study, those born in 1983 or later), and could perhaps even be an implicit social norm (a norm that is not openly stated). This is supported by the BPI's findings, which say that illicit downloading is "becoming ingrained as part of everyday leisure activity" (BPI 2010:31).

Overall, the norms examined were not seen to have any clear influence on the intention to use a legitimate ad-supported service, so they have been removed from the initial model proposed in the literature review, in advance of the quantitative phase of primary research. Pool and Schwegler (2007) say that the relationship between attitude and intention is stronger than the relationship between subjective norms and intention, suggesting that the removal of norms should not compromise the model (i.e. even if norms were found to be relevant).

It could be useful in future research to explore norms specifically (as a standalone topic related to music downloading), as they are clearly a complex

aspect, and understanding the psychology behind norms in this area could help companies to more effectively market their services. For example, a person could download music only through paid legitimate channels, but view a free legitimate ad-supported service as not adequately compensating an artist, and therefore abstain from using such a service to download music – an interesting perspective that lies outside the scope of this research.

5.1.5 Online music communities

Literature suggested that a sense of belonging to an online community (including communities of strangers with similar interests) might be valued or important, specifically for P2P users (e.g. Giesler, Pohlmann 2003b, Plouffe 2008). However, the group interview participants did not appear to share these views, with many saying they did not see the point or feel comfortable conversing with strangers online simply because they shared an interest in a particular artist or music genre. Having a feeling of community belonging (with strangers or with friends online) did not feature in their evaluation of a music service.

An openness to social interaction with a like-minded community of strangers online was present among the DJs that participated in the group interviews, but predominantly for professional reasons. They saw membership in an active music community as an essential part of their work, enabling them to find new and different music and stay on top of trends in their genres. Where the other participants did look for or participate in such groups or communities online, they said they did so passively in most cases, for information as opposed to wanting to feel they were a part of a community. Examples of engagement included signing up for electronic newsletters, or joining Facebook groups.

The literature implied that a sense of community was not particularly important for light or moderate downloaders, which may help to explain these findings. Most of the group interviews participants fell into the medium volume category, and most of the DJs fell into the heavy downloader category.

Interestingly, this sentiment may differ based on the primary purpose of the service. For example, Ping, according to literature, was not a very successful 'social' addition to a music download service, but social interaction with friends (and possibly strangers) may be more welcome on services that are primarily social but integrate music, such as "social music" concepts via Facebook

integration or services such as Turntable.fm (Van Buskirk 2011a, 2011b). This is further supported by those in the group interviews who used Spotify and Ruckus saying that they enjoyed being able to share their music playlists online with their friends. Indeed, the BPI's Digital Music Nation report (BPI 2010) mentions online social engagement as an increasingly popular feature of digital music services, though they highlight this in the context of users predominantly engaging online with their existing friends or 'followers', rather than a community of strangers (e.g. 'sharing' on a Facebook wall, or tweeting). In the context of this thesis, such activity was considered to fall within the realm of 'recommendations', as sharing via an online social network is typically the equivalent of making a recommendation to one's social network.

5.1.6 Registering for services and providing personal information

Most of the participants in Canada, the USA, and the UK said they gave at least some fake information when registering for online services, with the exception of paid services, and other services they trusted. They generally expressed their perception of 'credible' and 'trustworthy' companies as large companies with well-known names and many customers.

"I think when you think of a big company like Apple, or even Google or Microsoft, you're kind of kept at ease because you know it's a big company and you know they're not going to mess around," said one group interview participant (T3).

These findings are consistent with research by Kunze and Mai (2007) that says that consumers feel they are reducing their risk by choosing to use a well-known brand, though Kunze and Mai (2007) found that being a well-known brand was more important than being a "big" brand. This is also consistent with findings by Arora and Stoner (1996) that say (in an offline context) "name familiarity" impacts perceived service quality and the decision to use a particular service, particularly where intangible services are offered.

Trust can affect attitudes toward a service. While risk could be considered as uncertainty about the perceived consequences of an action/outcome, trust is premised in the expectation that one party has of another to do the right thing (see Section 3.2.2.8). Thus risk and trust have a relationship with each other, and for a music download service, this is perhaps illustrated most clearly by concerns about privacy and security of personal information.

The group interview participants did not want to provide personally identifying information to a company when registering for a service unless they could see a clear need for the company to have that information. They said that if the service was free to use, the more personal information they were asked for, the more suspicious they would be of the reasons for the request, and consequently, the more suspicious they were likely to be of the service. Some participants felt that providing more detailed demographic information to companies in exchange for a more tailored service experience was an attractive proposition, but they did not like the idea of companies having what they perceived as too much information about them, or having to spend a long time reading and filling out registration forms for a service that they might not use regularly.

Most of the participants said they were hesitant to give out their full address (more than a city or postcode). Many said they would not provide their phone number because they feared getting spammed with text messages or unsolicited communications, since they saw no other reason why a service would require such information (aside from the annoyance factor, in some countries some mobile providers charge for incoming texts). Participants did not want to provide their real birthdate, though those over the age of majority were more receptive to providing their real age.

The concerns expressed about privacy and information security are consistent with literature which notes that privacy and security of information are judged as aspects of online service quality (e.g. Zeithaml et al. 2002, Park, Kim 2003, Yang et al. 2004, Chen, Barnes 2007).

The participants also felt that service/user/license agreements were too long and complex, with only a scant few making an attempt to read them. They said they would like to know what they are agreeing to when they sign up to a service or install software, but felt it was not worth the effort to read the agreements, so they agreed to all the terms anyway.

Many said they thought companies intended for users not to read such agreements, by making them long, often written in difficult to understand legal language, and sometimes in small fonts. They said they felt they did not have an actual choice about whether or not to agree with terms of service, saying, "Usually you've already put in all your information so you're not going to say no,

or you've wasted all that time" (T2), "You either say yes to it and you get what you want, or you say no and you don't get it" (T2). Another participant said, "Life with computers on the Internet is checking 'yes' and remembering millions of passwords. If you don't remember all your passwords and you're not going to click 'yes' then you're not going to get anywhere" (T2).

5.1.7 Openness to ad-supported services

In the group interviews, there was almost no awareness of legitimate ad-supported music download services, whether they were active in the market in question, active in a different market, or now defunct. This suggests that there could be a lucrative untapped opportunity for industry to take advantage of, further justifying the importance of this research.

The Canadian participants were largely unaware of ad-supported music services in general. They recognized MySpace and YouTube as ad-supported content streaming services, with a few mentioning music services such as Grooveshark and Last.FM. This is not surprising, given that there is no well-promoted, stand-out service offering music streaming in Canada (i.e. on a par with Pandora or Spotify). The British participants were not aware of ad-supported music download services, despite two having been launched in the UK (though only one still operates as a download service), but almost all of them used the legitimate free music streaming service Spotify.

Interestingly, free, ad-supported music download services have existed for many years in the USA, but only two of the Americans were aware of such services ever having been offered in their country, naming the now-defunct service Ruckus, which they used on their college campus. Most of the American participants were, however, aware of or actively making use of ad-supported streaming services, most notably Pandora.

Many participants said that having to sit through or be exposed to advertising was a fair exchange for being able to download free music, however, it was determined that this was not necessarily an indication of whether or how often they might use an ad-supported download service. In all three countries, consumers' stated attitudes did not always match up with their stated intentions. As one student said, "It's more than fair because you're getting it for free, but you just don't want to do it" (Y1), while another said, "Even on Mega Upload you still

have to wait a minute to download…so it wouldn't actually be that different" (Y2). This is an example of the changing nature of attitudes, and where stated attitudes are not always aligned with actual behaviour.

The British students said that the type of advertising was important (it should be non-intrusive), and they did not want the advertising to interfere with their listening experience. The American participants said they were not sure whether they would sit through ads, though as one pointed out, the concept "is just like Hulu", a popular ad-supported online service for watching network television and films for free in the USA. The Americans also said that ads should be short, not before or after every song, and not be jarring or intrusive.

Not all of the Canadians agreed that an ad-supported service provided a fair exchange or that such a service was something they would use, particularly the high school students. The type and amount of advertising on a service was a concern that was raised, with participants in all group interviews saying they were open to the idea of such a service, but did not want to be "bombarded by ads", or served advertising that was long, intrusive, or otherwise interfered with their vision or music listening. "If it was 30 seconds I'd be pretty pissed off. 15 seconds is even pushing it," said one participant (T3). One high school student said, "I think it's kind of fair, they have to get their money somehow" (T4), mentioning that he and his friends all watched trailers in cinemas, so he did not think the concept was that much different. A fellow student then said, "Yeah but those are trailers, trailers are entertaining" (T4). A third student mentioned she was open to the idea, so long as the advertisements were for brands she was interested in, and that she did not have to worry about being taken to a suspicious website if she clicked on an ad within the service.

Regarding how attitudes could be affected by video pre-roll delaying access to a song, there was an issue of perceived interference with goal attainment, and the view that online advertisements were "annoying", in part because they delayed the download time. Most people said they would likely ignore the ads, using that time window to check email, check their social networking page, browse other websites, get a snack, or even look at the countdown timer indicating when the advertisement would end, instead of looking at the actual ads. While this suggests an aversion to advertising, it might also speak to the content of the ads not being engaging enough to capture and hold attention.

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The participants across all three countries were almost all willing to try a legitimate ad-supported music download service, but some were quite skeptical about whether it would meet their needs. The participants were also concerned about what they might have to sacrifice, such as time, due to watching ads before each download, the service not having an adequate selection of music, or not being easy to use. There was a range of opinions expressed when it came to openness to trying such a service, and the Canadian groups named a number of conditions, including that the service be free, efficient, have short, unobtrusive ads that were not forced before or after every song, and that the service must be compatible with iPods.

With regard to switching, the American consumers were largely happy with the services they were currently using, predominantly Pandora and iTunes. They felt they had no compelling reason to switch from their current services (whether paid or unpaid), with comments such as "something about it would have to be awesome" (N3), "it would have to be a really special service" (N3), "I would probably try it out" (N4), and "I just want what's easier and more convenient" (N2). One 21 year-old music business intern said, "iTunes was only good to everybody because it was the next best (legitimate) thing that came out to what we had before, which was really nothing before iTunes. So if something better came along, we'd use it" (N2). The intern said he was eagerly awaiting Spotify's launch in the USA (few of the American participants had heard of Spotify), because it was like Pandora, a service he liked, but Spotify offered more choice because he could choose specific songs to listen to.

The British students said they were largely happy with the services they were already using (such services included blogs, torrents, Spotify, and iTunes), and said that a new service would have to "have the things we want" (Y2) and "ideally equal or better the other ones that we're using" (Y1). Aside from being able to trust that a service was virus-free, one participant mentioned that credibility was important to him, saying that he would consider whether "it's got some good press from people that you trust…raving about this software" (Y1).

A Canadian high school student said he would be willing to give a legitimate ad-supported service a try, but he thought that he probably would not switch to one unless he was fined for using an illicit service, implying that he thought any

legitimate service would probably be inferior to the ones that he was already using.

One working Canadian participant who used torrents almost exclusively, and downloaded high volumes illicitly, said she would not be tempted to move to a legitimate free service that was not torrent-based because aside from torrents, nothing else, whether legitimate or not, met her needs. This is consistent with literature that states that high volume downloaders are more comfortable with technology, more set in their ways, and more demanding of the services they use (Levin et al. 2004, Chu, Lu 2007, Kunze, Mai 2007). This suggests that the industry may be better off targeting moderate downloaders, who are apparently more easily swayed (Molteni, Ordanini 2002, Kunze, Mai 2007), as their switching costs (barriers faced when switching) appear to be lower for this type of service.

Awareness of alternatives (an aspect of switching behaviour) was also an issue, with participants saying if they were aware of a good free alternative, they would try it. As one participant said, "I'm lazy and I don't really know anything else (other than LimeWire)" (T3). The fact that even those with a keen professional and personal interest in the music industry were not aware of legitimate free download services in their own countries suggests that there is a problem for marketing practitioners to address.

For some of the American participants, awareness of a service was important for a double purpose: for trust, and for knowing that a good quality legitimate service is available for them to use. "I would want to see that other people use it, just to be on the safe side. I don't want to be the first person and then it causes my computer to crash. I want to be the 1000th person," said a woman in her early 20s (N1). Another participant offered, "maybe if there were advertisements for it that pushed the legality of it and how it's totally free but you're not actually breaking the law, or something like that, then that might convince some people to use it" (N3) with another participant in the group adding, "that's what sort of convinced me to use something like Hulu or ABC.com or NBC.com, if I was going to watch a show. Before, I would download it (illicitly) and now half the time I'll just watch it on their website because it's already there and I don't have to look for it, and it's guilt-free".

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If faced with a choice between two free music download services with similar features, one legitimate and one illicit, the high school students said much more than others that they would use the legitimate one as they would feel "less guilty" and feel like they were "helping the artist". However, participants said any such service would have to be as good or better than what they were already using, in order for them to switch to it. These views are consistent with research by Clement et al. (2012:20), who found "modest" (though not statistically significant) evidence of a preference to use the legitimate service in such a scenario, with the caveat that the service be "at least on a par with" illicit ones being used. While it was unclear why this preference skewed in favour of the high school students, there is literature (e.g. Gladwell 2002, d'Astous et al. 2005) that suggests that younger people are more likely to express such a view because they tend to still be grappling with ethical issues when compared with older people. It is also plausible that since the younger participants tended not to pay for any music at all, that they felt they might be doing their part by using a legitimate service if they would not or could not otherwise pay for music.

Those who were already using free services were largely happy with their current services (except for viruses on illicit ones), but as with the American participants, the Canadians implied that a new free offering simply being virus-free alone was not necessarily enough to entice them to leave their preferred services, making it impossible to make any reliable statements about predicted intention given the scope of this study.

5.1.8 Limitations of the group interviews

While the aim was to reach mostly heavy downloaders (those downloading at least 80 songs per month), especially those using illicit services, in practice, the majority of participants tended to illicitly download 25 songs per month on average, with the highest downloaders averaging over 500 songs a month. This turned out to be an advantage rather than a limitation, given that literature suggests that the heaviest illicit downloaders tend to be fewer in number, more technically savvy, and less inclined to abandon the services they already use in favour of a legitimate commercial alternative that inevitably would restrict their current habits in some way.

The American participants tended to illicitly download less, for ethical and philosophical reasons, though these views tended to be based on strongly held personal beliefs, as opposed to a result of music industry PR against piracy. This does not appear to be a typical view for the American market, and is likely due to sample bias for this group, which included music business interns, and university-educated professionals with more established careers than the other groups. Nevertheless, this provided interesting and useful insight.

Overall, the diversity of the group interview participants added greatly to the breadth and perspective of the findings, providing a range of attitudes and opinions from a much richer base of consumers, compared with only being able to speak with heavy music downloaders, or those not involved in the music industry. These limitations were considered to be acceptable given that this is an exploratory research exercise, with conclusions not being drawn from the qualitative results alone.

5.1.9 Service quality

The findings from the qualitative research phase map to the dimensions of online service quality that were outlined in Section 3.2.2 . This mapping is shown in Table 22 for a free, ad-supported music download service.

While this mapping serves as a good starting point, in future research, it would be useful to refine the conceptual meanings for some of the categories in more depth, for example, trust, safety, and technical perceptions.

Service Quality Dimension	What This Means in Practice
Aesthetically pleasing	Simple user interface, not cluttered
Easy to Use	Intuitive interface and navigation, easy to search for and download music
Convenience compared with alternatives	Versatile files (e.g. MP3 format), a variety of file formats, files can be downloaded quickly, user can transfer songs to a reasonable number of personal music devices and synchronize playlists between computers and devices
Wide offering of products and features, personalized to the user	Large catalogue of music including music that is not mainstream, album art, accurate recommendation features. To a lesser extent, personalized interface to show information the user is interested in, ability to rate songs. Other features not seen as important
Technically reliable and efficient	No viruses, no fake files, glitch-free songs, songs download within a reasonable amount of time, good audio quality, metadata is accurate and well-labelled, service provides relevant search results
Good customer service	If the service is paid for, the customer service team should respond promptly and resolve the problem
Trustworthy and reputable, with clear terms of use, accurate information, and security of information	No malware, no suspicious advertising, a free service should not ask for too much information or information seen as personally identifying. Confidence about the service is generated by the service been known and used by others (e.g. press coverage, friends using it). Terms of service should be easy to read and understand and not too long
Delivers on promises	The service should not misrepresent its offerings, and song downloads should not fail

Table 22: Service quality framework mapped to free music download services

5.2   Revisions made to the model after the qualitative phase

The model shown in Figure 20 that was developed from the literature review is the model that was used as the basis for the group interview topic guide.

Based on the qualitative findings, revisions have been made to the initial model, in advance of the quantitative research phase. The revised model is shown in Figure 26 (Harris 2011a). An explanation of the hypotheses can be found in Section 5.3, and a copy of the survey questions can be found in Appendix C.
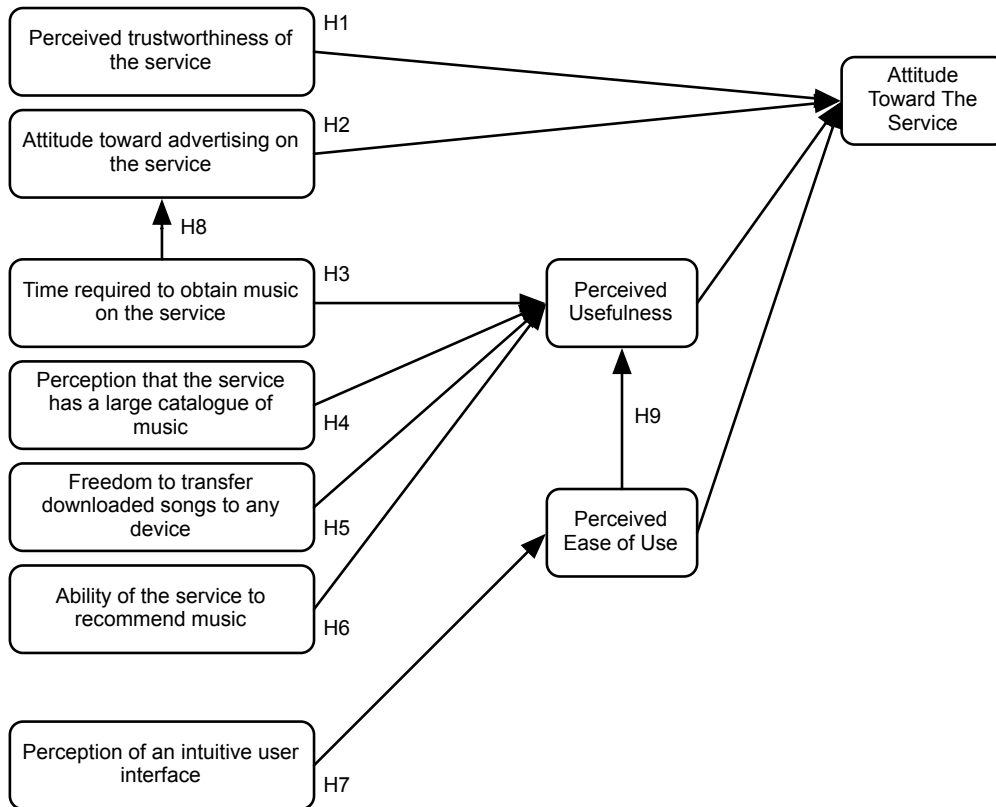
Figure 26: Model of consumer attitudes toward the usage of a free, ad-supported music download service, with hypotheses (Harris 2011a)

The most obvious revision is the removal of intention, norms, and behaviour. The group interviews revealed that norms had an inconsequential impact on attitudes toward a legitimate ad-supported service (see Section 5.1.4.1). It was determined that it would be impractical to attempt to measure intention and behaviour within the scope of this research because of the limited access to and awareness of free legitimate ad-supported services. As such, the revised model considers consumers' attitudes toward the service (and using it), not their intentions or behaviours.

Convenience was represented as a generic construct affecting perceived usefulness in the initial model. The group interviews explored this concept further, and revealed that convenience represented the value of time in terms of how long it took to find and download music from a service, as well as the convenience of being able to download a file and transfer it to any personal listening device. These constructs are represented in the new model by 'Time

required to obtain music on the service' and 'Freedom to transfer downloaded songs to any device'.

The group interviews explored what features consumers used, whether they were useful and valued, if so, to what extent, and how that affected attitudes toward a service. What the group interviews revealed is that most features were not particularly important to or valued by consumers or perceived as being useful in a tangible way, with the exception of music recommendations. Therefore 'Features Offered' has been replaced with 'The ability of the service to recommend new music' While recommendation features were described as useful and valued, the extent of their importance and their effect on the evaluation of a service was inconclusive.

Search capability was found to be a service utility, not an ease of use aspect, because it is an inherent part of a service and is used as a tool to find music (the service cannot function without it). Ease of use was described in the group interviews as being related to having a simple, uncluttered, easy to use interface. As a result, the 'Search capabilities' construct was replaced by 'Perception of an intuitive interface' in the revised model.

Trust (in the context of trustworthiness, safety, and a sense of security) was not a construct that was included in the initial model, as it was considered that the key issue regarding trust on an online music service was that of trusting that a service was virus-free, a characteristic which is assumed to be inherent in a legitimate music download service. However, in exploring issues of trust in the group interviews, it was found to relate strongly to provision and security of personal information and quality of advertising. As such, a new construct has been added, called 'Perceived trustworthiness of the service'.

Ease of use was found to be dictated by a service's user interface. As such, 'Perception of an intuitive user interface' has been added as an antecedent to Perceived Ease of Use.

5.3   Hypotheses for online survey

Based on the literature review and qualitative findings, ten hypotheses have been developed for testing in the quantitative phase, related to the core areas of value, utility, trust, and online advertising, and how perceptions of key characteristics in

each of these areas affects attitudes toward the usage of a free legitimate ad-supported music download service. The hypotheses are presented here in accordance with the revised model shown in Figure 26, with each hypothesis representing a relationship as outlined in the model:

H1a: Requests for information that are perceived as unjustified/suspicious lead to negative attitudes toward a service.

H1b: Advertising that is perceived as suspicious lowers a consumer's perception of the trustworthiness of a service, thereby leading to more negative attitudes toward a service

H2: Consumers dislike services that force advertising consumption, even if they are receiving free music in exchange for viewing the advertising.

H3: Consumers will tolerate short delays due to forced advertising consumption (delaying their downloading/song access), in exchange for free music.

H4: A modest music catalogue (as opposed to a large, comprehensive one) is still considered useful and positive if the music is free.

H5: Consumers will accept proprietary formats and copy protected songs on a service so long as that does not interfere with their ability to listen to their music on their own computers and portable devices.

H6: Music recommendation features are an important utility on an online music download service.

H7: An intuitive, easy to use interface is not important to consumers if they are getting free music from a service.

H8: Delays caused by forced advertising consumption (i.e. pre/post-roll video) negatively impact consumers' attitudes toward advertising on a music download service.

H9: A free music download service is still perceived as useful even if it is not easy to use.

5.4 Quantitative findings

An online survey was conducted between late January 2011 and mid-April 2011. 372 people started the survey, and 270 people finished the survey (60 people who were exited early from the survey because they neither streamed nor downloaded music were counted as not finishing). Of the 270 people who finished the full 34-question survey, 239 valid responses were yielded. Responses were invalid if any of the following applied:

- The participant did not spend most of his/her time in Canada, the USA, or the UK (18 respondents)

- The participant had downloaded less than 12 songs within the previous 12 months (13 respondents, after the removal of those outside the specified target markets)

The survey focused on consumer attitudes related to the model constructs as shown in Figure 26.

It was decided that the opinions of respondents who downloaded an average of less than 1 song per month (12 songs per year) were not relevant to the research findings, because they could not by any measure be considered regular downloaders.

Each question in the online survey was tested for significance against each demographic (age, gender, level of education, employment status) and consumer characteristic (volume of paid downloads, volume of illicit downloads, affiliation with music industry). Cross-country comparisons were also investigated for significance. Any significant or notable relationships that were found are stated in the sections that follow (i.e. demographic/characteristic relationships for each question are only mentioned in the remainder of this section if they were found to be statistically significant or otherwise notable).

Chi-square p-values have been used after statements of significant relationships to denote the level of statistical significance of those relationships. A p-value below 0.05 indicates a statistically significant relationship, and a p-value higher than 0.05 represents reduced evidence of statistical significance (see Section 4.4.2.3 for additional information on analysis techniques).

5.4.1 Demographics and consumer characteristics

Most respondents were between the ages of 20 and 35, with a post-secondary qualification, in full-time employment, and downloaded music both legitimately and illicitly.

Aside from fairly standard demographic information such as age and gender, education was used as an approximate social class indicator (Creusen 2010), as it was presumed to be much less intrusive than asking people to declare more personal information, such as their income bracket.

Given the lack of clarity in the literature, and based on the habits described in the group interviews with respect to volume and frequency of downloading, an adjustment was made to the classifications of downloaders (from Table 11), as shown in Table 23. The majority of downloaders that took part in the study fall into the 'light' or 'medium' categories of this new classification (up to 25 songs per month, see Figure 27 and Figure 28).

Class	Songs Per Month (Approximate)	Album Equivalent (Approximate)
Light	1 to 5	n/a
Medium	6 to 25	1 or 2
Moderately Heavy	26 to 50	2 to 5
Heavy	50 to 99	5 to 10
Extremely Heavy	100 or more	10 or more

Table 23: Revised classifications of music downloaders, by monthly volume

5.4.1.1 Age

The largest age group represented was 25 to 29 year-olds. The target age range for this research was 15 to 35 year-olds, and 74.1% of the valid responses fell within that range. This is consistent with government and industry association age profiles of legitimate and illicit downloaders outlined in 3.4.2 , where a majority of downloaders were in the under-35 group, and the largest single share of downloaders by age group fell into the 25-34 year old category.

Age Group	Frequency	Percent
15-19	14	5.9
20-24	35	14.6
25-29	96	40.2
30-34	32	13.4
35-49	50	20.9
50+	12	5.0

Table 24: Survey respondent representation by age group

5.4.1.2 Gender

146 males and 93 females participated in the online survey, yielding a rate of 61.1% male to 38.9% female. The gender breakdown is similar to the group interviews, which were 58% male and 42% female, and similar to the illicit downloading gender profile of 60% male 40% female, published by the BPI in 2010 (BPI 2010).

5.4.1.3 Education and employment status

The participants were well-educated, with 97.9% having at least a high school diploma, and 72.8% graduating from college or university. 22.6% of respondents were either currently in post-secondary education or started post-secondary education but did not graduate. 80.7% of respondents were engaged in either full-time or part-time paid employment.

While some studies have suggested that education level, employment status, and financial means affect illicit downloading attitudes and behaviour (e.g. see Harris 2007's literature review), no such research was found indicating that this might affect acceptance or usage of a free legitimate music download service. Indeed many of the students in the group interviews mentioned they were of limited financial means (though many would likely consider them middle class).

5.4.1.4 Country

57.4% of participants lived in North America (31.0% in Canada, 26.4% in the USA), and 42.7% were from the UK. Readers are invited to note that the terms

'Americans', 'Canadians' and 'Britons/British' in this analysis refer to country of residence, not nationality.

Country	Frequency
Canada	74
USA	63
UK	102

Table 25: Frequency of survey respondents, by country

5.4.1.5 A note on geographic sample comparison

According to Reynolds et al. (2000:4), "Comparability in cross-national research is often achieved by selecting matched, homogeneous samples," but they mention that some researchers are critical of homogenous samples in cross-national research because of the trade-off between representative-ness of a population, and comparability. They also say that convenience sampling can "lead to unintentionally homogeneous samples", which they say is ok for experimental "theory application research" that does not aim to make statistical inferences about a population at large (p. 1-2). Reynolds et al. go on to say that "Matching of cross-national samples helps to ensure that any observed differences between nationalities are due to national differences rather than more basic demographic differences that may exist between the groups […] However, the specific criteria on which samples are matched needs to be theoretically defensible […] If matched samples, whether homogeneous or heterogeneous, are used then the reasoning behind the matching variables needs to be explicit" (p. 4).

The three markets being studied in this thesis share a common language and have similar laws, cultures, and broadband Internet penetration, inherently minimizing any cultural or interpretive differences that could arise from a multi-national sample (for example, difficulties that might arise with a sample of American, Japanese, and Kazakh music downloaders).

In the survey sample for this research, the only variable that was deliberately 'matched' between all three countries was downloading. Those who had not

downloaded 12 or more songs in the previous year were not able to complete the full survey.

Analysis was done for each question in the online survey to identify any significant differences between countries. Only a few minor differences were found that were statistically significant.

The analysis found that Americans were less receptive than others to a free download service that used copy protection. It also found that more Americans and Britons said they rarely or never used illicit services when they could not find the music they were looking for on legitimate services compared with Canadians, who used illicit services more than others.

While there does not appear to be a contextual explanation for the finding on copy protection, the differences in illicit downloading appear to be due to American and British respondents (who scored closely with each other in this area) being more successful than Canadians at finding the music they were looking for through legitimate services (chi-square p-value = 0.045). They therefore presumably had less need to search via illicit channels. The British and American respondents also abstained from illicit downloading more than the Canadians (chi-square p-value = 0.000, 0.001), which could well be due to the increased anti-piracy PR and legislation efforts in those countries, relative to Canada. In any case, the latter question does not relate directly to anything in the proposed model, and absent any other significant differences found between the three countries, for the purpose of validating the proposed model in this research, the three countries have been treated as a collective group. Dufft (2005) takes the same approach, considering seven European countries in her sample of over 4,800 respondents as one collective group (with the homogenous variable being European Internet users), noting any national differences where they arise.

5.4.1.6 Paid downloading volume

74.1% of respondents paid for music downloads, with most downloading up to 25 songs per month (one or two albums). None of the participants paid for more than 100 downloads a month. In Figure 27, 'None' represents less than 1 song per month.
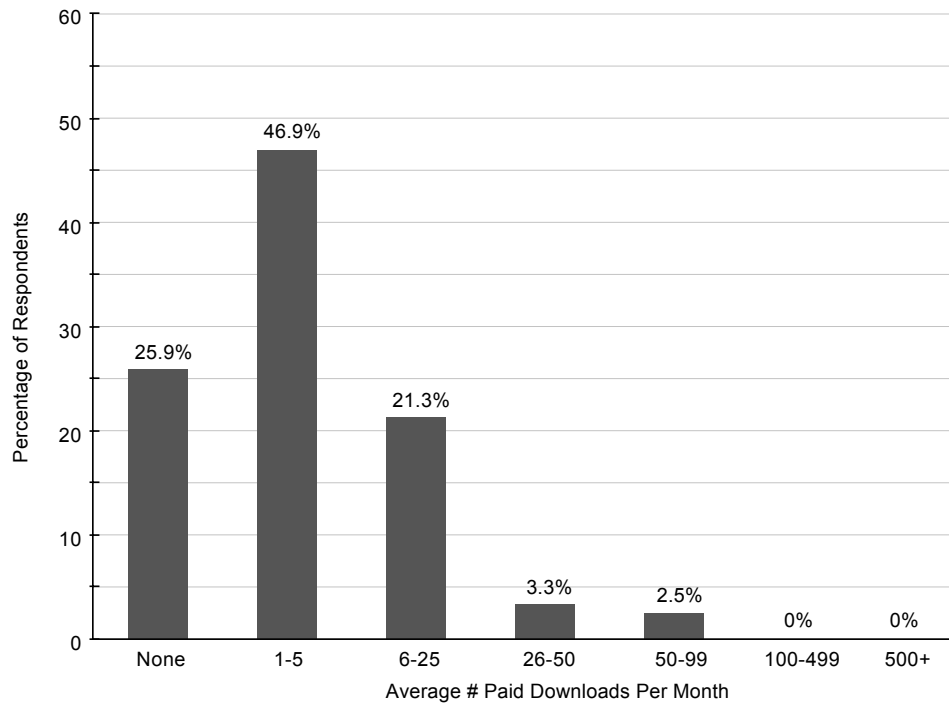
Figure 27: Average number of paid music downloads per month, by percentage

5.4.1.7 Illicit downloading volume

66.9% of respondents downloaded music illicitly, with the bulk of these illicit downloaders downloading between 1 and 25 songs a month. 5.0% of respondents downloaded more than 50 songs a month (equivalent to 5 albums), with 0.8% illicitly downloading between 10 and 50 albums (up to 500 songs) a month. 25.9% of respondents used illicit services exclusively. In Figure 28, 'None' represents less than 1 song per month.
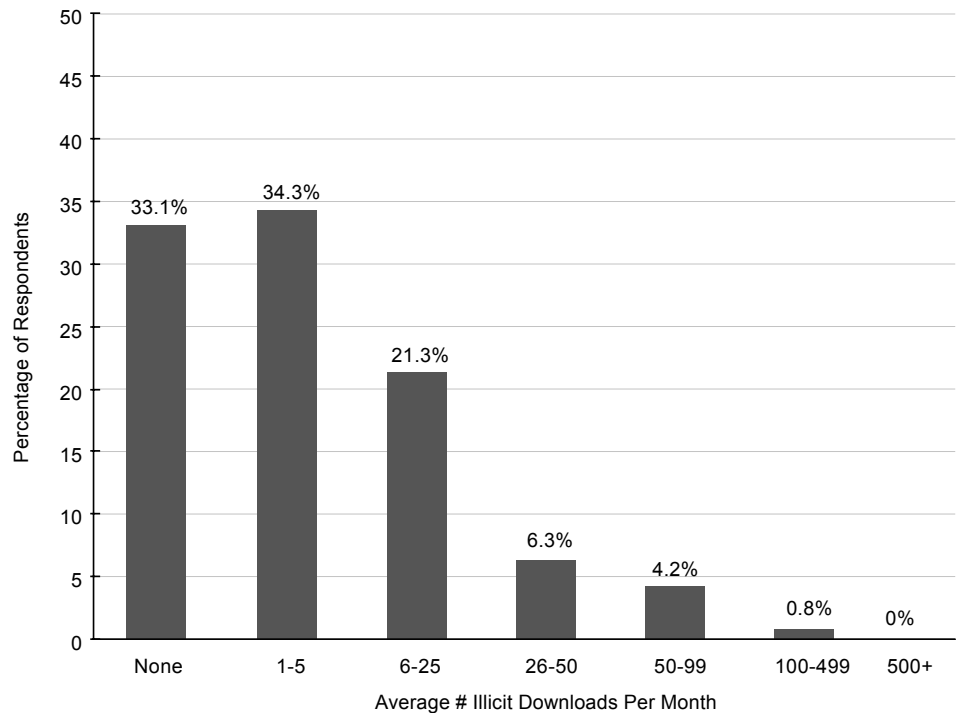
Figure 28: Average number of illicit music downloads per month, by percentage

Respondents over 30 were less inclined to download illicitly, and also tended to illicitly download lower volumes than other age groups (chi-square p-value = 0.001). Abstention from illicit downloading increased with number of devices owned for listening to music (chi-square p-value = 0.000).

There is a significant relationship between employment status and use of illicit services. Respondents who were employed used illicit services less than those who were not currently employed, and the more hours a person worked per week (i.e. part time, full time), the less they used illicit services. Those in full time employment used illicit services less than others when they could not find music they were looking for via legitimate channels (chi-square p-value = 0.000), and those in paid employment abstained from illicit downloading more than unemployed respondents (chi-square p-value = 0.000).

5.4.1.8 Affiliation with the music industry

The majority of respondents (72.0%) said they were not affiliated with the music industry through their area of work or academic study (e.g. sound engineer, music journalist, lecturer, band manager, studying music business, studying audio engineering). With the exception of perceptions about the adequacy of a

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legitimate service's music catalogue, affiliation with the music industry had no significant relationship with any of the constructs. There was no significant relationship between stated affiliation and illicit or legitimate downloading volume.

5.4.2 Findings by construct

Questions assessing attitudes related to the model's constructs were measured using 5-point Likert scales, where 5 represented an aspect being most important or a person having the most positive attitudes/perceptions (i.e. towards recommendation features, trustworthiness, ease of use, advertising, freedom of use).

Analysis was done based on the 5-point scales. For clarity in the discussion of results, the 5-point scales were converted to 3-point scales for presentation purposes only (i.e. agree, no opinion, disagree), where 3 then represented an aspect being most important or a person having the most positive attitudes/perceptions.

5.4.2.1 Recommendation feature construct

In the group interviews, participants said they liked recommendation features and found them useful for discovering music, suggesting that the feature held utilitarian value. It was not clear, however, to what extent this service characteristic was valued or affected attitudes toward a service.

The survey results confirm that while a sizable minority (43.1%) prefers to have the option of using recommendation features, most people (78.2%) only use the feature infrequently, and most people (70.7%) did not rate the feature as important. Recommendation features were used more frequently by those downloaders who also streamed music (chi-square p-value = 0.019), and the feature was considered more important by that group (chi-square p-value = 0.008).

After running a reliability test on the 3-point scale data for all three items related to the recommendation construct, the results were found to be internally consistent (α = 0.828, all pairwise correlations > 0.3). While it could be surmised that the presence of a recommendation feature on a service could still potentially lead to a more positive service evaluation, when the group mean for attitudes

was determined (across all three questions), it was found that recommendation features were actually unimportant. This is consistent with findings in Section 5.1.1 .

Table 26 shows the questions related to the recommendation feature construct, along with their mean attitude scores, and the answer most frequently given for each question.

Question	Answer	
	Mean	Mode
Q7: How often do you make use of recommendation features on music download or streaming services to find new music (e.g. "things you might like", "just for you")?	1.77	1
Q8: How important is it to you for music download services to be able to recommend songs for you to listen to?	1.75	1
Q9: I would prefer to use music download services that could recommend new music for me to listen to.	2.13	3
Grouped (Q7, Q8, Q9)	**1.88**	

Table 26: Attitudes towards recommendation features (means and modes)

5.4.2.2 Trustworthiness construct

In the group interviews, attitudes related to trustworthiness and credibility were found to be affected by the level of personal information requested by a service, as well as by the perceived trustworthiness of advertisements shown on a service.

Survey respondents were asked whether they would be suspicious of a legitimate free music download service that asked them to provide their full address, mobile phone number, or full date of birth as part of registration. 82.8% of respondents said they would be suspicious, which is consistent with group interview findings that consumers are uncomfortable providing personally identifying information when they do not see a clear and justifiable reason for that request. In the case of a free service, which would not bill users, consumers did not see why personally identifying information would be required.

Consistent with the group interviews and literature, most respondents (78.7%) said their attitudes toward a website's trustworthiness were negatively affected if they were on a website they thought had a trustworthy reputation and they saw advertising that looked suspicious. 47.7% of respondents said that the quality of advertising displayed on a website affected their perceptions of a website's safety.

59.0% said that both trustworthy and untrustworthy websites show suspicious advertising. This indicates that for trusted sites, while perceptions of service quality are affected by the display of suspicious advertising, perceptions of safety are not affected as much, and the display of suspicious advertising is not necessarily in itself something that would drive users away from a website or online service based on reduced feelings of trust.

The survey items related to the trustworthiness construct were not statistically internally consistent, though the responses still provided useful descriptive data for the construct. This lack of statistical reliability is not surprising, given that the questions were designed to provide richer descriptive information about attitudes by asking about different conceptual aspects related to the trustworthiness construct (i.e. trust, safety, justification for personal information), as opposed to asking four questions about a single concept (e.g. justification for personal information). This approach was taken due to the limited number of questions that could be asked within the target survey completion time, and the pragmatic desire to cover the concept of trustworthiness from as many aspects as possible.

Table 27 shows the questions that were asked for this construct, as well as the percent in agreement, disagreement, and those who expressed no opinion. The mean attitude score for each question is also included, with a higher number representing trustworthiness being more important in influencing attitudes. The mean scores show that suspicious advertising and requests for personal information that are perceived as unjustified affect attitudes a great deal.

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Question	Answer			
	Disagree	No Opinion	Agree	Mean
Q26: I would be suspicious of a legitimate free music download service that asked me to provide my full address, mobile phone number, or full date of birth as part of registration.	10.0%	7.1%	82.8%	2.73
Q27: When I'm on a website that I think has a trustworthy reputation, if I see advertising that looks suspicious, I feel like I can't trust the website as much.	7.5%	13.8%	78.7%	2.71
Q28: Only untrustworthy websites show advertising that looks suspicious.	59.0%	22.2%	18.8%	1.60
Q29: Both trustworthy and untrustworthy websites show suspicious advertising, so the quality of advertising on a website doesn't affect how much I trust a website's safety.	46.0%	24.3%	29.8%	2.18

Table 27: Attitudes towards perceived trustworthiness

These findings confirm the relevance of factors identified in the literature review that relate to perceptions of privacy, security, and trustworthiness (see Section 3.2.2.8).

5.4.2.3 Ease of use and its influence on perceived usefulness

Most respondents (60.3%) said that ease of use is important even if they are getting free songs from a music download service. 60.3% also said that a free music download service would only be useful if it was easy to use. As the mean attitude scores in Table 28 show, ease of use is an important consideration.

The responses to the two questions on ease of use were statistically correlated (chi-square p-value = 0.000), with 75.0% of respondents who said ease of use is important also saying that a service would only be useful if it was easy to use. Another statistically significant finding was that people in full-time employment had greater expectations of a service being easy to use than others (chi-square p-value = 0.015).

The question about perceived usefulness was asked to assess whether and to what degree perceived ease of use influenced perceived usefulness. The characteristic of a large music catalogue was referred to in order to establish contextual equivalency, and to position the service as the object (rather than

anything that could be construed as an action). This ensured that it was the ease of use of the service in general being evaluated, rather than anything else.

	Answer			
Question	Disagree	No Opinion	Agree	Mean
Q21: I don't care about a music download service being really easy to use, if I am getting free songs from it.	60.3%	35.6%	4.2%	2.56
Q22: A music download service with a large catalogue of free music (e.g. equivalent to iTunes) would only be useful to me if it was easy to use.	27.6%	12.1%	60.3%	2.33

Table 28: Ease of use and perceived usefulness

While the revised model in Figure 26 proposed a relationship between an intuitive user interface and perceptions of ease of use, there were no survey questions that explicitly referenced user interfaces. Instead, an intuitive interface was assumed to be an inherent characteristic of ease of use, based on the qualitative findings.

5.4.2.4 Attitudes toward advertising

While 51.0% of respondents said they disliked "all online advertising", almost 20% expressed no opinion. The survey respondents' attitudes toward advertising in general were not as hostile as those in the group interviews, and align more with the literature (e.g. Goldsmith, Lafferty 2002, Cheng et al. 2009).

87.0% of respondents felt that being forced to view advertising on a free music download service was okay, as long as it did not get in their way, and 80.8% said that having to view advertising in exchange for free music was a fair exchange. This relationship was statistically significant (chi-square p-value = 0.000), with 87.2% of those who were open to forced ad consumption saying that it was a fair exchange for free music. The responses to these two items were internally consistent (α = 0.714, all pairwise correlations > 0.3) when the question about disliking all online advertising was removed.

Table 29 shows the mean scores and modes for attitudes toward advertising for the internally consistent questions.

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		Answer	
Question		**Mean**	**Mode**
Q24: Advertising on a free music download service is okay, as long as it doesn't get in my way.		2.79	3
Q25: Having to see advertising on a music download service in exchange for getting free music is a fair deal.		2.70	3
Grouped (Q24, Q25)		**2.75**	

Table 29: Attitudes toward advertising (means and modes)

The survey results suggest that general hostility toward online advertising is tempered when there is an associated reward in return, such as free music. However, a statistically significant finding was that those with no formal qualifications were more hostile toward online advertising. They generally did not feel that forced advertising on a music download service in exchange for getting free music was a fair deal, and said that advertising on a free music download service was not okay even if it did not get in their way (chi-square p-values = 0.023, 0.010, 0.009). Readers should note that this group consists of 5 people (2% of the sample) so may not be indicative.

This expression of hostility challenges findings that frequent Internet users, men, youth, less educated, and less wealthy people have more favourable attitudes toward advertising than others (Shavitt et al. 1998, Korgaonkar, Wolin 2002, Wolin, Korgaonkar 2003), with no other significant demographic relationships found that related to advertising. This may be in part due to the age of those studies, with newer ad formats perhaps having a different affect on attitudes.

There was a significant relationship between age and educational qualifications of respondents in the survey for this thesis, with 82% of respondents who had no formal qualifications or only a high school diploma being over the age of 35 (chi-square p-value = 0.000). It is thus a reasonable guess that owing to their age, most of the respondents with lower-level qualifications might currently earn what could be considered a middle-class income, with the income potentially counteracting the level of education, perhaps explaining the disagreement between the two results. Readers should note that the sample for those without formal educational qualifications (5 people) and those with only a high school

diploma (6 people) is very small (4% of the total sample) so might not be particularly indicative.

Overall, respondents were open to the concept of forced advertising consumption when free music is received in return. However, it is important for the advertising to be minimally intrusive/disruptive in order for a positive effect on attitudes toward a service to be maintained.

5.4.2.5 Freedom of use construct

Freedom to transfer a downloaded song to any device was clearly important. While most people (75.7%) said they tried to avoid using music download services that prevented them from transferring their downloads to any brand of computer or device, 68.2% said they would use a legitimate free music download service that employed copy protection, as long as they could still put their downloads on all of their personal computers and portable music devices that they listened to music on. Indeed, this finding is supported by the fact that many of the group interview participants had used iTunes to download songs with DRM, but expressed their disdain for DRM at the same time.

There were a number of significant findings related to this construct.

Respondents who owned more than 4 devices for listening to downloaded music made an effort to avoid using services with DRM more than others (chi-square p-value = 0.300). Those over 50 made less of an effort to avoid services with DRM, and those between 20 and 24 years of age made more of an effort than other age groups (chi-square p-value = 0.056).

17.2% of all respondents were against DRM on principle (chi-square p-value = 0.000). Males were less receptive than females to services with DRM (chi-square p-value = 0.001) and more males than females opposed DRM on principle (chi-square p-value = 0.000). Americans were less receptive to services with DRM than Canadians or Britons (chi-square p-value = 0.019), and heavier illicit downloaders (chi-square p-value = 0.000), those who only owned one device (chi-square p-value = 0.017), and those not in paid employment (chi-square p-value = 0.099) were less inclined to use services with DRM.

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Reponses to items regarding usage of services with copy protection were internally consistent (α = 0.759, all pairwise correlations > 0.3) when the question about effort made to avoid such services was removed.

As Table 30 shows (including only internally consistent questions), overall, respondents had positive attitudes towards services with DRM if the DRM did not have a noticeable impact on their ability to listen to their music. A score of 3 represents freedom of use being important.

Question	Answer	
	Mean	Mode
Q14: I would use a legitimate free music download service that puts copy protection on songs, as long as it allowed me to put the songs on all my computers and portable music devices.	2.44	3
Q16: I would not use a legitimate free music download service that puts any copy protection on songs, even if it allowed me to put the songs on all my computers and portable music devices.	2.32	3
Grouped (Q14, Q16)	**2.38**	

Table 30: Freedom of use (means and modes)

These findings are consistent with literature on DRM which finds that while it is disliked, most people will tolerate it if it does not interfere with their use of the downloaded file in a significant way (i.e. they are not prevented from listening to their downloaded music).

5.4.2.6 Large catalogue construct

In the group interviews, a large catalogue (both in breadth and depth) was described as important, and participants said they believed illicit services had a greater selection of music than legitimate services. Accordingly, the online survey asked questions about the perceived adequacy of music catalogues on the legitimate services that the respondents used.

Most respondents (69.0%) said that legitimate music download services carried most of the music they wanted to download, however, 22.6% of respondents said they often could not find music they were looking for on legitimate services. The responses to both questions were correlated (chi-square p-value = 0.000).

85.4% said that a legitimate free music download service would still be useful to them if it had some but not all of the songs they wanted to download. The group interviews indicated, however, that if the service only had very few songs of interest, the cost (time and effort) involved in having to find the remaining desired songs on a different service might be perceived as outweighing the benefit of using the legitimate free service in the first place.

The items related to the large catalogue construct were not found to be internally consistent because they asked about different aspects of a large catalogue's importance, however, there were a number of significant demographic relationships found.

There is a statistically significant relationship between volume of legitimate downloading and the perceived adequacy of a music catalogue. As respondents' legitimate download volume increased, the number of respondents who said legitimate services often carried the music they were looking for also increased (chi-square p-value = 0.009), and the less frequently illicit services were used to find music (chi-square p-value = 0.000). Heavy legitimate downloaders said more than others that legitimate services had most of the music they wanted, while those who only downloaded illicitly and those who illicitly downloaded more than 25 songs per month said more than others that legitimate services did not have most of the music they wanted (chi-square p-values = 0.013, 0.001, 0.005). It was also found that the higher the volume of a respondent's illicit downloads per month, the more frequently illicit services were used to find music that could not be found via legitimate channels (chi-square p-value = 0.000). It would be interesting in a future study to explore whether the perceived lack of an adequate catalogue is genre related or related to other factors, such as the lack of popularity of an artist.

Canadians used illicit services more frequently than Americans or Britons when they could not find what they were looking for through legitimate channels (chi-square p-value = 0.000). This is apparently due to Americans and Britons being more successful at finding their desired music through legitimate services (chi-square p-value = 0.045). This success could perhaps be explained by the greater variety of commercial services available in those countries (see list of services by country in IFPI 2012). Another contributing factor could be the more prominent anti-piracy efforts in the USA and UK relative to Canada.

Those affiliated with the music industry were less satisfied with the catalogues of legitimate music download services (chi-square p-value = 0.008).

Table 31 shows how often respondents said they used illicit services to find music because they could not find what they were looking for through legitimate channels. Overall, the perception of an adequate (large enough) catalogue has a positive influence on attitudes toward a service (see Table 32). The perception of catalogue adequacy, however, is somewhat subjective, given that individuals have differing tastes in music. It is thus impossible within the context of this research exercise to comment on the size of a potentially adequate catalogue. The concept of perceived adequacy would be an interesting topic for further research.

Question	Answer			
	Rarely or Never	Sometimes	Frequently	Mean
Q19: How often do you use unsanctioned file sharing services (e.g. torrents, Limewire, etc.) or rip music from video streams (e.g. YouTube) to get music you want but can't find on legitimate music download services?	52.3%	21.8%	25.9%	2.26

Table 31: Frequency of illicit service use when unable to find desired music through legitimate channels

Question	Answer			
	Disagree	No Opinion	Agree	Mean
Q17: Legitimate music download services have most of the music I would want to download (regardless of whether I want to pay for it).	19.7%	11.3%	69.0%	2.49
Q18: Legitimate music download services often don't carry the music that I want to download (regardless of whether I want to pay for it).	58.6%	18.8%	22.6%	2.36
Q20: Even if it didn't have all of the songs I want, a legitimate free music download service would still be useful to me if it had some of the songs.	6.7%	7.9%	85.4%	2.26

Table 32: Perceptions of a large catalogue of music

5.4.2.7 Time value construct

Survey respondents were asked questions to assess their attitudes toward the value of time in the context of a delay caused by forced viewing of pre-roll video advertising on a service in exchange for free music.

Consistent with the group interviews, the results revealed that a majority of consumers were willing to tolerate short, forced advertising consumption (up to 10 seconds of advertising before each song) in exchange for free music. Significantly, 64.0% of respondents said short advertising was ok in general, with only 21.6% of those respondents saying 5 to 10 seconds was too long (chi-square p-value = 0.000). A majority of respondents (56.5%) said that a legitimate free music download service would still be useful to them even if it forced them to consume advertising before each download.

There were some significant demographic relationships as well. Heavy legitimate downloaders (over 50 songs a month) said more than others that a legitimate free music download service would still be useful even with forced advertising. Interestingly, moderately heavy legitimate downloaders (25 to 50 songs a month) agreed less than others (chi-square p-value = 0.049). These groups represent 2.5% and 3.3% of the sample respectively, so this finding may not be indicative.

Those who owned 5 or more devices for listening to downloaded music said more than others that a legitimate free music download service would be useful to them even if they were forced to watch advertising (chi-square p-value = 0.042), while those with only one device disliked online advertising more than others (chi-square p-value = 0.026) and indicated more than others that such a service would not be useful to them if they were forced to watch advertising (chi-square p-value = 0.042).

While many in the group interviews who were willing to tolerate forced video advertising mentioned limits of 30 seconds (or 15 seconds for lower tolerances), 5 to 10 seconds was used to assess tolerance in the survey. This decision was made because the perceived value of time and the perceived cost of a delay are contextually and situationally dependent (see Section 3.1.3). 5 second and 10 second advertisements are the shortest broadcast-standard advertising lengths for television, and it was decided that if respondents said they would not tolerate such short amounts of advertising, that would provide more insight than results

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saying consumers would not tolerate 30 seconds; particularly as the latter would require lengthening the survey to add necessary follow-up questions to assess whether consumers would be more willing to tolerate shorter lengths.

The items related to the time value construct were found to be internally consistent (α = 0.861, all pairwise correlations > 0.3).

As the summary in Table 33 shows, forced advertising is not necessarily a deterrent to service usage. A higher mean represents more favourable attitudes toward advertising on a service. Statistically significant results for this construct indicate that positive attitudes toward a service can be maintained if the advertising forced on the consumer before each song is kept to 10 seconds or less when the consumer is offered a free song as compensation for their delay.

Despite the provision of free music, the duration of the advertising is still an important consideration, because the consumer will weigh the perceived cost of the delay with the perceived value of the reward they receive in return.

Question	Answer				
	Disagree	No Opinion	Agree	Mean	Mode
Q10: When I'm downloading music, it's ok to show me a short online advertisement before my song starts downloading, if I'm getting the song for free.	27.6%	8.4%	64.0%	2.36	3
Q11: Having to watch 5-10 seconds of advertising on a legitimate music download service before each song I want starts downloading is too long for me to wait for a free song.	49.4%	10.5%	40.2%	2.09	3
Q12: A legitimate free music download service is only useful to me if I can download songs without having to watch any advertising first.	56.5%	12.6%	31.0%	2.26	3
Q13: Having to watch 5-10 seconds of advertising on a legitimate music download service before each song I want starts downloading is ok if I am getting the song for free.	26.4%	8.4%	65.3%	2.39	3
Grouped (Q10, Q11, Q12, Q13)				**2.28**	

Table 33: Attitudes towards delays caused by advertising (means, modes, and percentages)

5.4.3 Most important characteristics

The survey respondents were asked the following question, which was placed after all the questions related specifically to constructs: "If you were evaluating a music download service that gives you free music to keep forever, in what order of importance would you rate the following characteristics?". The characteristics to choose from were based on the model antecedents for perceived usefulness and perceived ease of use:

- Large catalogue of music

- Service can recommend music

- Not forced to watch or listen to ads

- Freedom to transfer songs to any device

- Easy to navigate

A value of 1 represented 'most important', and 5 represented 'least important'. The percentages listed beside each mode in Table 34 indicate the mode by percentage of respondents.

	Large catalogue of music	Freedom to transfer songs to any device	Easy to navigate	Not forced to watch or listen to ads	Service can recommend music to me
Mean	1.73	2.19	3.20	3.58	4.31
Median	1	2	3	4	5
Mode	1 (56.9%)	2 (38.5%)	3 (37.7%)	4 (33.1%)	5 (56.9%)

Table 34: Music download service characteristics by order of importance

The answers to this question revealed 'clusters' of importance. A large catalogue of music was by far the most important characteristic, followed by freedom to transfer songs to any device. Ease of navigation and not being forced to watch or listen to ads formed the next most important cluster, and the service having a recommendation feature was seen as least important of all. A majority of respondents said that a large catalogue was most important, and a majority also said that recommendation features were least important.

The cluster of characteristics identified as most important relate to the primary utilitarian value of the service (the ability to actually obtain desired music and transfer it freely), whereas the less important characteristics could be said to relate to secondary utilitarian value and the service experience (easy to use and discover new music without interference from advertisements). The concept of primary and secondary utility was introduced in Section 5.1.1 .

These findings are consistent with findings from the group interviews, which clearly said that being able to obtain desired music is of paramount importance, and that DRM is disliked. The group interviews were less explicit about the

importance of ease of use, aversion to online advertising when free music is offered, and recommendation features, and these quantitative results suggest that that was likely because the latter issues are generally not as important to consumers.

5.5   Validation of hypotheses

The validation of the hypotheses is based on the combined findings of qualitative and quantitative research. The hypotheses are related to the core areas of value, utility, trust, and online advertising, and how perceptions of key characteristics in each of these areas affects attitudes toward the usage of a free legitimate ad-supported music download service.

Hypothesis H1a stated that "Requests for information that are perceived as unjustified/suspicious lead to negative attitudes toward a service". The research confirmed this hypothesis. If a free music download service requests personally identifying information from a consumer and the consumer does not see a justifiable need for the service to ask for such information, the consumer's attitude toward the service will be more negative.

Hypothesis H1b stated that "Advertising that is perceived as suspicious lowers a consumer's perception of the trustworthiness of a service, thereby leading to more negative attitudes toward a service". The research confirmed this hypothesis. If consumers see advertising that appears to be suspicious on the website or service they are using, their attitude toward the site or service will be negatively affected.

Hypotheses H1a and H1b are related to the concepts of risk and trust. While Kunze and Mai (2007) identified risk factors in the context of decisions to use paid services, risk is still an important consideration for legitimate free services, especially relatively lesser-known ones. Risk in using a legitimate music download service appears to be related much more to uncertainty about consequences in general, than loss or any specific consequences (e.g. identity fraud). Consequences could range from spam, to fraud, to simply discomfort with an unknown party having access to personal information without perceived justification. It could also include uncertainty about the credibility of a site, or how safe it is to use the site (i.e. viruses), based on the aesthetics of the displayed advertising.

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Hypothesis 2 stated that "Consumers dislike services that force advertising consumption, even if they are receiving free music in exchange for viewing the advertising". The research confirmed this hypothesis. A majority of consumers said they disliked online advertising, even if they were willing to tolerate short advertisements in exchange for free music. However, the impact of forced consumption on attitudes is affected by perceived usefulness of the service, by providing free music in return for making consumers wait, as well as having ads that are not perceived as suspicious, intrusive, or too long.

Hypothesis H3 stated that "Consumers will tolerate short delays due to forced advertising consumption (delaying their downloading/song access), in exchange for free music". The research confirmed this hypothesis. While forced delays were considered to be irritating, most consumers indicated they would tolerate short ones (5 to 10 seconds) in exchange for free music, because the value of receiving desired music for free was enough to compensate for the value of lost time, resulting in the service still being perceived as useful.

While there is a lack of literature related to tolerance of new advertising formats such as video, and little on the impact of perceived trustworthiness of online ads, the findings for H2 and H3 are consistent with literature, and indeed contribute to literature in a new context (i.e. in the context of a service where the consumer receives something valued to keep for free). This research found that advertising-based irritation on such a service can potentially be reduced by minimizing perceived intrusion and disruption of goal achievement by keeping advertisements short, credible, and presenting them simply.

Hypothesis H4 stated that "A modest music catalogue (as opposed to a large, comprehensive one) is still considered useful and positive if the music is free". The research confirmed this hypothesis. Even if a service is missing some songs that a consumer wants, the service will still be viewed favourably if it has most of the songs the consumer wants. If the service only has very few songs of interest available to download, that will negatively affect attitudes toward the service due to perceptions of increased cost (loss of time and convenience) and reduced utility. An analogy for this could be a supermarket – a consumer is unlikely to consider a particular supermarket useful or worth returning to for weekly shopping if its product selection does not adequately encompass products that the consumer is looking for, or it only has one or two items the shopper wants.

There is a lack of literature on perceived adequacy of catalogue size, so the findings for H4 are relative in nature, and would benefit from additional research.

Hypothesis H5 stated that "Consumers will accept proprietary formats and copy protected songs on a service so long as that does not interfere with their ability to listen to their music on their own computers and portable devices". The research confirmed this hypothesis. Some objected to DRM on principle, but most consumers said they would accept files that contain DRM from a legitimate service providing them with free music, if the DRM permits them to freely transfer and listen to the songs on all their personal portable devices and computers. The more restrictive the DRM, the more negative the attitude toward the service because of the perception of reduced utility. Proprietary file formats were considered acceptable based on the same conditions. These findings are consistent with the literature on DRM.

Hypothesis H6 stated that "Music recommendation features are an important utility on an online music download service". The research disproved this hypothesis. While the literature suggested that recommendation features are valued by consumers, research found that music recommendation features were seen as useful, but not important to consumers or frequently used by most consumers.

While the presence of a recommendation feature has the potential to contribute to positive attitudes toward a service, it does not appear to have a significant influence either way. The presence of such a feature does not appear to be important in the decision to use a free music download service, and the absence of such a feature does not consequently lead directly to a more negative attitude toward a service. There were indications that in-service recommendations are more valuable to those who use streaming services, although that could be because some services, such as Pandora, are inherently a recommendation service (Pandora listeners cannot choose specific tracks to listen to).

As mentioned previously in this thesis, it should also be noted that these findings on recommendation features may be different for researchers who are studying social music sites, as opposed to purely music sites that may have social aspects (the difference is in the primary purpose of the site). For example, Turntable.FM is a social music service specifically designed to make music recommendations

and listening a social experience online (as opposed to providing a shop or outlet for obtaining music). The area of social recommendations for media content is an interesting one to watch, particularly as popular streaming service Spotify struck a deal with Facebook in late 2011 which integrates Spotify into Facebook (people logged into Facebook can now stream music within the social network). However, Spotify then forced new joiners to have a Facebook account (relenting for Germany in 2012), presumably to track consumer behaviour in detail and generate useful data that services can use to increase ad revenue.

Hypothesis H7 stated that "An intuitive, easy to use interface is not important to consumers if they are getting free music from a service". The research disproved this hypothesis. Ease of use is important to consumers, even if they are getting music for free from a service. A service that is perceived as difficult to use will have a negative impact on attitudes toward the service.

Hypothesis H8 stated that "Delays caused by forced advertising consumption (i.e. pre/post-roll video) negatively impact consumers' attitudes toward advertising on a music download service". The research confirmed this hypothesis. Delays can negatively affect attitudes, but as discussed previously, this effect can be mitigated if the delays are short and there is a perceived reward (compensation) for the cost of the delay, i.e. free music.

Hypothesis H9 stated "A free music download service is still perceived as useful even if it is not easy to use". The research confirmed this hypothesis. However, if a service is not easy to use, that will negatively affect attitudes toward the service and the perceived utility of the service.

Literature related to ease of use and online music services mentions familiarity with technology and volume of downloading as a key factors influencing the perceived importance of ease of use. In this research, however, ease of use was found to be a secondary aspect of service experience, related to utility and convenience. Familiarity with technology and volume of downloading were not found to be significant factors affecting attitudes toward ease of use, though this difference could be down to the market of study (Asia in the literature versus North America and the UK in this research). While clear criteria for ease of use has been outlined in the research exercise, it is still a relative concept, and would be another interesting area to explore in future research.

5.6   Final revisions to the model

Figure 29 shows the final, validated conceptual model based on the complete research findings outlined in this chapter, and the validated hypotheses. In this model, the construct for a recommendation feature is omitted, as it was shown not to be valid.
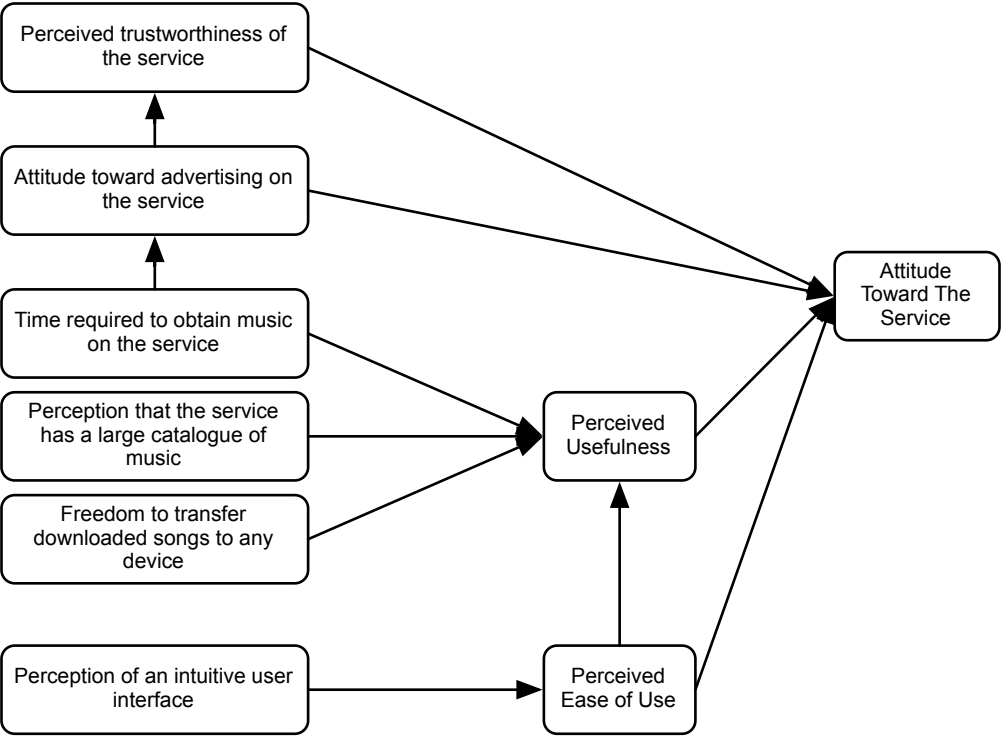
Figure 29: Validated model of consumers' evaluation of a free legitimate, ad-supported music download service

5.7   Summary

This chapter provided a contextual discussion and analysis of the qualitative and quantitative primary research findings related to interactions with and attitudes toward online music services, in particular, perceptions of value, utility, trust, and online advertising.

Revisions to the model made after the qualitative phase were discussed, and the 9 hypotheses that were developed as a result were outlined. Seven of the nine hypotheses were confirmed, and a final, validated model presented.

Chapter 6 discusses the findings outlined in this chapter, how they relate to the literature, and how this thesis has contributed to the knowledge and the body of literature.

Chapter 6: Discussion

This chapter discusses the primary research findings from Chapter 5 in terms of what value, quality, and satisfaction mean to users of a free legitimate ad-supported music download service, and what matters most and least for such a service. It identifies where this thesis' findings agree with, challenge, and extend the body of academic literature, and reveals some interesting areas for further research. The discussion is based around findings that relate to the development of a model for this thesis.

The typical participant in the primary research exercise was:

- 20 to 35 years old

- Post-secondary educated

- Paid for between 1 and 25 downloads a month

- Illicitly downloaded up to 25 songs per month

- Used 2 to 4 devices (including computers) to listen to downloaded music

- Not affiliated with the music industry

6.1 Value, quality, and satisfaction for a legitimate free music download service

In the literature review, it was shown that value, quality, and satisfaction are complex subjective perceptions that are linked, and can influence intention. The nature of those links is ambiguous, but essentially value is the quotient of a cost-benefit equation in the mind of the consumer, and quality and satisfaction relate to whether expectations are met, and to what extent.

In the literature, the value of a music download service, whether free/paid or illicit/legitimate, is generally conceptualized as either objective/utilitarian/functional or subjective/hedonistic/experiential. While some authors suggest that people value downloading music because the activity itself is fun (e.g. Ramayah et al. 2009), other research suggests the value lies in the utility of the service (e.g. Music Experience and Behaviour in Young People 2008). Holbrook's Typology of Consumer Value (see Table 2 in Section 3.1.3)

accounts for each of these types of conceptualizations as being self-oriented and active forms of value.

It was suggested in Chapter 3 that consumer value consumers for the purposes of this thesis (which considers the service as the object) is be self-oriented, active, and extrinsic. The primary research exercise confirmed that when the service is the object, the value of the service falls within the objective/utilitarian/functional conceptualization, with value being seen as extrinsic and self-oriented, and occasionally reactive (i.e. value being judged based on reaction to perceived quality).

The group interviews found that value in music download service was seen as predominantly utilitarian – participants wanted to be able to quickly and easily find and download music first and foremost, with fun and entertainment being secondary considerations, or nice-to-haves. This was evidenced in the online survey, which showed that a majority of respondents said that a large music catalogue was most important and music recommendations were least important. While it could be argued that recommendations are a utility, they were identified in the group interviews as the most useful and valued feature on a service, but still as a nice to have rather than a core service aspect. Being able to quickly and easily find music on a service constituted (core) value to participants, rather than the presence of extra features.

These findings extend the current literature on value by exploring and conceptualizing the nature of value as it relates to a legitimate free content service. Previous studies that have considered value with respect to music services have tended to focus on the features of paid services (e.g. Amberg, Schröder 2007) or the appeal of free illicit services as an alternative (e.g. Walsh et al. 2003, Music Experience and Behaviour in Young People 2008). The findings of this thesis are therefore important because they give insight into how a free service will be judged by consumers, allowing industry the opportunity to build strategies to market accordingly for maximum results.

The value of time

The value of time is also an important consideration for downloaders. Literature on this topic, particularly related to online advertising, tends to focus on legacy problems (i.e. unintended delays) to do with Internet connection speeds and

page loading times. While these can still be issues today, the magnitude of such delays has been greatly reduced largely because Internet infrastructure has improved and the cost of accessing fast Internet connections has decreased. As new technology and online advertising formats have been introduced, such as video pre-roll, the value of time now needs to be considered in additional contexts in the online environment. For example, pages might load without any perceptible delay, but the introduction of video pre-roll before a download can take place introduces one intentionally.

The literature review mentions that the value of time can also relate to navigation (Ryan, Valverde 2005) and ease of use, because an easy to use service can facilitate greater user productivity. A service that makes it easier to find and download music was identified by consumers as being more valued. Indeed, Constantinides' literature review found that lengthy transactional processes irritate online consumers and can negatively influence attitudes toward a site (Constantinides 2004). In the case of a music download service, transaction duration could be considered as downloading time, or the time it takes to complete the download from when the song or album is chosen.

Internet connection speeds for Canadian, American, and British consumers in urban centres are typically much faster than they were 10 or 15 years ago (i.e. broadband or fibre optic instead of dial-up), and expectations of how long it takes to download a song have risen accordingly. Participants in primary research said they perceived the passage of time differently depending on what they were doing, but that they expected downloads to happen in a minute or less for a song, saying that represented a reasonable wait time. In the days of dial-up internet, it was not uncommon for it to take over an hour for a song to download from a P2P network such as Napster.

Primary research found that downloaders would be willing to tolerate advertising that delayed them getting the music they wanted, but only if the advertising was short (5 to 10 seconds). For a free service, participants saw their cost as being their time and effort invested, therefore value was judged as the balance between the time they had to invest and getting the music they were looking for. This also illustrates value having a basic overlap between utility (e.g. sufficient catalogue) and ease of use (e.g. quick and easy to navigate).

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This thesis extends literature on wait times and the value of time by identifying additional issues that affect the perception of wait times online. As discussed previously in this section, literature on the topic to date has focused mainly on connection speed, page loading time, download time, and navigation (e.g. Rose, Straub 2001, Ryan, Valverde 2005, Kunze, Mai 2007, Dabholkar, Sheng 2008), whereas this thesis considers additional aspects such as search functionality and forced wait times for advertising display, where free content is received in exchange. It also contributes to the literature by confirming that Internet users generally do not consider the online environment to be directly equivalent to offline channels such as radio or television. For example, in discussing experiences with video content and advertising online, it was clear that group interview participants had shorter attention spans for online advertising versus television advertising. This may be explained in part by participants mainly discussing content clips during the group interviews, rather than full-length television shows.

It should be noted that different video content services have taken different approaches to placing ads against traditionally formatted content online (i.e. television shows) – the American content streaming service Hulu tends to use a typical number of commercial breaks and a typical number of commercials within those breaks, but of much shorter duration. The UK's Channel 4 uses longer commercials for its breaks, and often fills commercial breaks with the standard length of television advertising, for no discernable difference between media.

Quality and satisfaction

The concept of quality was outlined earlier in this thesis as users receiving what they want, with acceptable features, at a low perceived cost – at a very basic level, this means getting a desired song glitch-free, and without the perception of an unduly long wait or convoluted journey to get to the song. For a music download service more generally, quality was found to represent a service being aesthetically pleasing, easy to navigate and use, with a large catalogue, free from technical issues, and appearing trustworthy.

There is debate in the literature about whether satisfaction is a form of attitude or an outcome evaluation, and this thesis had initially aimed to contribute to a better understanding of what is required of an online service to encourage the

perception of good quality and value, and a better contextual understanding of what constitutes user satisfaction. Since this thesis ended up not measuring actual service use, it is not possible to comment on satisfaction explicitly, but it is possible to comment on factors that might contribute to user satisfaction for this type of service. These factors are implicitly discussed throughout the rest of this chapter.

6.2   What matters most, least, and not at all

In the literature review, the following key aspects were thought to affect users' attitudes toward an ad-supported music download service:

- Size of the service's catalogue

- Time it takes to obtain a song on the service

- Freedom of use of the downloaded file

- How easy it is to use the service

- The nature of advertising on the service (time delay and interference)

- The reputation of the service (trustworthiness and reliability)

- Extra features

- Norms

Consistent with the concept of primary and secondary utilitarian value that was introduced in Section 5.1.1 , some of these characteristics were identified in primary research as being more important than others.

6.2.1 What matters most

Convenience (catalogue size, time to obtain a song, freedom of use), ease of use, advertising, and reputation were found to matter most to downloaders.

6.2.1.1 Convenience (catalogue size, time to download, DRM)

In the literature, convenience, which is an aspect of service quality, was broadly found to include aspects such ease of finding desired music, ease of getting artist information, being able to download songs quickly, and being able to download

DRM-free music (Molteni, Ordanini 2002, Walsh et al. 2003, Constantinides 2004, Helberger et al. 2004, Amberg, Schröder 2007, Kunze, Mai 2007, Music Experience and Behaviour in Young People 2008, BPI 2011, Papies et al. 2011). Primary research identified key aspects of convenience as relating to the size of a service's catalogue, the time it takes to download music, and the presence and restrictions caused by Digital Rights Management (DRM), which will be discussed in this section.

There did not seem to be literature that specifically addressed the topic of convenience for music download services, and what it represented to downloaders. The literature that came closest to doing so discussed the topic in terms of added value features for paid services (e.g. Amberg, Schröder 2007) or, as in much of the trade literature already discussed, reasons for using illicit services (e.g. free) – neither concept specifically considers convenience independent of financial considerations. This thesis fills this gap by describing in more detail what 'convenience' actually means to downloaders, and where the boundaries of tolerance appear to be. In doing so, this thesis has also raised some interesting questions for future research.

Catalogue size

Many studies have shown that users of illicit services choose to use those services not only to find free music, but also to find music that might be difficult to find on paid services (e.g. Plouffe 2008, Music Experience and Behaviour in Young People 2008, IFPI 2010, IFPI 2011). The size of a music catalogue has been inferred as a marker of service quality in academic literature, relating to the service quality framework dimensions (see Section 3.2.1) of having a wide offering of products, being more convenient than alternative services, and being easy to use (i.e. easy to find music).

Both the group interviews and the online survey found that the breadth and depth of service's catalogue was important. While 66.9% of survey respondents downloaded music illicitly, 69.0% of respondents said that legitimate services carried most of the music they wanted to download, with only 22.6% saying that they often could not find music they were looking for on legitimate services. There was a significant correlation between these findings. Significantly, those who said that legitimate services carried most of the music they wanted paid for

their downloads more than others, and were less likely to download illicitly. Conversely, the highest volume illicit downloaders were less successful at finding their desired music through legitimate channels. The failure to find some music via legitimate services could be due to some of the reasons suggested in the group interviews, such as users wanting out of print compilation albums or film scores, or music by less well-known or foreign artists.

The key question that has been raised by primary research on the topic of music catalogues is 'how big is big enough?'.

Respondents did not expect a single service to have all the songs they wanted to download, with a majority (85.4%) saying that if a service had most but not all of the songs they wanted, they would still find the service useful. In the group interviews, it was noted that there was an unquantified threshold, at which point many said if a new service had only a few songs of interest, the time and effort involved in searching for songs that are mostly unavailable might completely erode the service's value, even if all the service's songs were available for free. It would be interesting to attempt to quantify this apparent threshold in future research, though there are complex factors to consider in doing so; for example:

- Genre: It may be easier or more difficult to find songs from certain genres on particular services. If a user likes a particular niche genre, that could affect their perception of relative catalogue size.

- Popularity of the artist: Niche or independent artists may be more difficult to find than household names, depending on the service. Services exist that specifically target fans of independent and more obscure music, and it is easier for independent artists to join a large service such as iTunes than it is for an independent service to sign a licensing deal for major label content.

- Perceived convenience: If a user is satisfied with the download service they are currently using, the perception of having to interact with a different service to legitimately get only one or two songs, even if they are free, may be off-putting.

Time it takes to get downloaded music

The literature reviewed in Chapter 3 discussed the value of time, and how the perceived passage of time is relative and somewhat individual. The literature related to perceived delays in the online environment examined this topic in the context of page loading times and download times, typically conducted many years ago when Internet connection speeds were much slower and web pages that took 30 seconds to load were not uncommon (e.g. Rose, Straub 2001, Ryan, Valverde 2005, Dabholkar, Sheng 2008). Such research found that delays could negatively affect user attitudes, to the point of causing users to abandon websites.

The group interviews confirmed that the passage of time is a subjective perception, and that time also holds value for music downloaders – both in the actual time it takes for a file to download, and the elapsed time as part of the user experience (which includes ease of navigation and delays caused by advertising).

For an ad-supported service, the nature of advertising must be considered specifically in relation to the perceived value of time. Convenience versus alternatives is a dimension of service quality, so the longer it takes to get music on a service compared with its competitors, the greater the risk of it being perceived as poorer quality than its competitors. A legitimate service that forces users to sit through advertising that is perceived as too long may be perceived as less convenient and of lower quality and value than others. This was confirmed in primary research, with participants saying that they would measure the convenience of a new service against what they were already using.

While most participants in the group interviews said they expected a song to download in a minute or less, in the absence of an ability to measure downloading behaviour, it was not clear in practice how long participants waited on average. A number of participants said that if they had other things to do and could start a download and then go check their emails or get a snack or do other things with their time, they were less concerned about how long a particular song took to download. This finding is consistent with existing literature (e.g. Leclerc, Schmitt 1999, Rose, Straub 2001, Dabholkar, Sheng 2008).

The examples discussed in this chapter thus far further illustrate the complexity of service design with respect to pleasing both advertisers and users as key stakeholders – should advertising be structured so that users are 'forced' to interact with it, rather than click 'download' and move onto some other activity, ignoring the advertising? If so, in what way should that forced interaction be designed? Services such as Guvera have users choose which brand's advertising they want to see on the service's branded player. Other services force users to watch pre-roll video or listen to pre-roll audio. Apple Inc. even filed a patent that essentially tests users after an ad is shown, to make sure the user has been paying attention (Stross 2009), though the company has not yet applied such technology on its devices. Authors such as Papies et al. call for additional research to determine what conditions are required for ad-supported download services to generate enough revenue to be profitable (Papies et al. 2011).

This thesis builds on the literature discussed above, by illustrating in greater detail the issues that should be considered specifically in the design of a free, ad-supported music download service.

Freedom of use

The literature reviewed on DRM strongly suggested that most users of music services disliked mechanisms that restricted their ability to use downloads in whatever way they wanted, but that users tended to tolerate it anyway if it was transparent (Helberger et al. 2004, Amberg, Schröder 2007, Kunze, Mai 2007, Papies et al. 2011).

Interestingly, 17.2% of survey respondents for this thesis were against DRM in principle; significantly, males were less receptive to DRM than females. While a review of the literature shows that there is a significant gender difference related to willingness to pay for music, in favour of more females being willing to pay (Fetscherin, Lattemann 2007, BPI 2010, Makkonen et al. 2011), there does not appear to be any literature readily available that examines gender differences with respect to DRM aversion. In the apparent absence of more specific research, it could be implied (or hypothesized) based on findings on willingness to pay, that DRM may be a contributing factor to a gender difference for willingness to pay. This thesis is the first piece of literature to explicitly state a significant finding relating gender to DRM aversion, raising another interesting,

pragmatic area for further research. Understanding the nature of such a difference could help industry to better market its download services by enabling the construction of external ads that target potential male and female users based on relevant gender-applicable themes. This would be especially useful for services that advertise themselves online on other websites and via other services, given the wealth of demographic segmentation and analysis available that allows for fairly precise targeting.

While 75.7% of survey respondents said they tried to avoid using music download services with DRM, it was not clear whether they were successful in doing so (i.e. did they try to avoid such services, but end up using them anyway). Literature previously referred to in this section suggests that a majority of users do indeed end up using services with some form of DRM. It is not possible to discern from the survey data whether those who were successful at avoiding DRM were successful because they used illicit services, or because they used legitimate DRM-free services. There was no indication that heavier illicit downloaders were against DRM in principle.

Transparent DRM is an important consideration for a music download service. Transparency means that DRM is present, but that it does not noticeably interfere with the usage experience. 68.2% of respondents said that they would use a legitimate free music download service that had DRM if the DRM allowed them to put the music file on all their personal computers and portable music devices. The typical device limit (where one exists on a service) is for a song to be transferred to 5 separate devices. Most survey respondents (60.7%) had two or three pieces of hardware that they listened to downloaded music on, including their computers and portable devices.

This thesis confirms findings by other researchers (e.g. Helberger et al. 2004, Amberg, Schröder 2007, Kunze, Mai 2007, Papies et al. 2011) that consumers generally express a dislike for DRM but in practice, but do not care about it so long as they are not aware of it. DRM on music files appears to be a much less contentious issue than it was a decade ago, with some services allowing more CDs of playlists to be burned, song transfers to more devices, making DRM-free song upgrades available, or even getting rid of DRM altogether. Such moves show that industry has made efforts to make paid (or otherwise legitimate) music downloads more attractive than illicit alternatives (the latter are DRM-free).

6.2.1.2 Ease of use

The perception of ease of use was found to be positively influenced by a service's structure and aesthetics. A simple, uncluttered, and intuitive service interface that makes it easy to get to desired content in a few clicks was identified as contributing to a positive attitude and service experience.

While some literature suggests that ease of use is less important a consideration for heavy/frequent downloaders and technologically savvy internet users (see Chu, Lu 2007), both the group interviews and online survey challenged such findings, revealing instead that ease of use is important to most users, including heavy/frequent downloaders.

Chu and Lu found that ease of use did not drive value on music download websites. Referring to this as an unexpected finding, they suggest their results may be in part due to their sample consisting of predominantly computer-literate Taiwanese students under 30 years of age.

The findings of this thesis are more consistent with the conceptual theory of TAM that states that perceived ease of use affects perceptions about the utility of a service. While Chu and Lu say TAM asserts that "perceived usefulness is more important than perceived ease of use in determining whether or not to use a technology" (Chu, Lu 2007:150), TAM does not inherently distinguish between heavy users of a technology, frequent users, or users with more advanced skills. This suggests that perceived ease of use is a relative interpretation, and that more experienced users of a particular technology or service may find it easier to use owing to their familiarity with the object; it does not necessarily follow that ease of use is therefore less important to more experienced users, particularly where the adoption of a new service is concerned, since past experience may not provide any advantage on a new service. It is also important to note that heavy/frequent music downloaders might not be technologically savvy, and vice versa.

In the group interviews, the descriptions of ideal intuitive user interfaces given by light and heavy downloaders were very similar, suggesting that using a service should be intuitive to the point that the user does not need to consciously think about how to use it. The expectation appeared to be that a new service trying to

compete with existing ones should be easy to use by default, and this is an important finding for service designers to keep in mind.

6.2.1.3 Advertising

Various academic studies have come to different conclusions on how online advertising affects consumer attitudes, and whose attitudes it affects. However, the literature has been more consistent with noting which (legacy) formats are more effective and why.

In the literature review, it was noted that some researchers found that frequent Internet users, men, youth, less educated, and less wealthy people have more favourable attitudes toward advertising than others, and as people become wealthier and more educated, they tend to avoid ads (Shavitt et al. 1998, Korgaonkar, Wolin 2002, Wolin, Korgaonkar 2003). The online survey for this thesis did not find any significant relationships between demographics and attitudes toward advertising, with the exception of those with no formal qualifications, who were more hostile toward advertising (in conflict with the findings of the previously mentioned researchers). Those with no formal qualifications comprised only 2% of the survey sample, so this may not be an indicative result. It was suggested in Section 5.4.2.4 that this discrepancy might be related to that 2% actually being older and middle class, and that those demographic factors might take precedence over not having any formal qualifications.

The findings of this thesis agree more with Goldsmith and Lafferty (2002), who found that gender and age were not significant in affecting attitudes towards ads displayed on a website. It is not clear whether the differences between these findings relate to the type of online advertising shown, given that certain formats are more prevalent today than they were in 1998. It should also be noted that Shavitt et al.'s study skewed to an older demographic than the other studies mentioned (the others had a majority of respondents under 40 years old, with Goldsmith and Lafferty's study having over 90% of its sample 23 years old or younger). It would be useful for future research to expand the data set by noting demographic significance not just for attitudes toward online advertising in general, but to specific ad formats.

This thesis supports the literature on tolerance of legacy online formats such as pop-ups. Participants in all stages of primary research noted that they had a greater dislike for ads that interfered with goal achievement, particularly visually (i.e. blocking or covering content they wished to access).

The literature on online advertising was found to be lacking in its analysis of new formats, especially on topics to do with tolerance, the impact of video advertising on the perceived value of time and goal interference, and how a user's perception of the trustworthiness and safety of a website is affected by the ads displayed. This thesis contributes to filling that gap by focusing on pre-roll video advertising, and tolerance in terms of the length of the advertisement shown, and increased wait time as a result of being forced to view advertising.

Primary research found that although many people say they dislike online advertising in general, most people will tolerate it if it is deemed to be a reasonable length and not excessive in relation to the free content received in return. This builds on the findings of Cheng et al. (2009) and Goldsmith and Lafferty (2002) who find that consumers are not typically definitively negative about online advertising, although their findings focus on altogether different advertising formats than this thesis.

Literature related to aesthetic perceptions of online advertising tends to explore how an attitude toward the ad affects attitudes toward the website within the context of brand credibility and the credibility of the message provider, but appears to lack specific investigation into how ads affect perceived trustworthiness and safety of the website they are displayed on (see Figure 30).
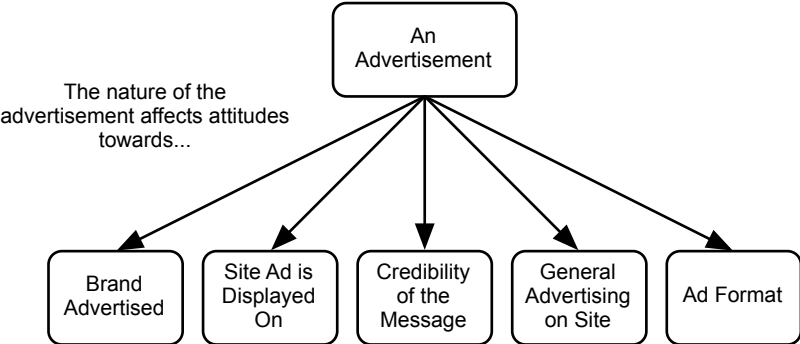
Figure 30: Existing high-level conceptualizations of the effect of an advertisement on various attitudes

Consistent with the suggestions of other researchers' findings, primary research for this thesis found that aesthetics affect a user's attitude toward the site and service provider. However, this thesis builds on previous findings in a significant way. The findings of this thesis suggest that there are three high-level stages of attitude deterioration as a result of advertising that is perceived as poor quality or suspicious (see Figure 31). The first stage is the lowering of the user's opinion of the website in question. The second stage is the user perceiving the website as less trustworthy, and the third stage is the user questioning the safety of the website. In the case of trustworthiness, users might exercise more cautious behaviour on the website, feeling that it is safe to use within certain boundaries (i.e. not clicking on anything that looks blatantly suspicious). In the case of safety, users who question the perceived safety of a site might consider it outright dangerous to use, regardless of whether or not they take care to use the site within certain boundaries.
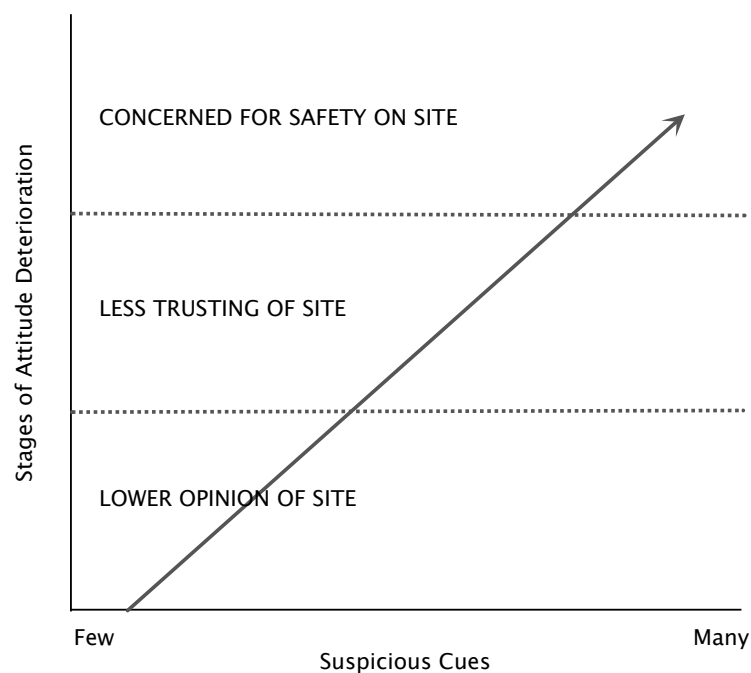
Figure 31: A high-level conceptualization of attitude deterioration as a result of suspicious advertising/suspicious cues

This three-stage concept is a very interesting finding, and it would be intriguing to study this area further to note the progressive journey of how attitudes toward websites and services are affected. An ad being perceived as less trustworthy did

not necessarily lead to a website being perceived as less trustworthy. For example, an ad viewed as suspicious may cause a user to feel that the website is less prestigious than they thought, but not necessarily untrustworthy. The movement along this axis, from no concerns to genuine concerns about safety, appears to be affected by the format of advertising shown, the nature of the advertising (i.e. poor production values, suspicious, 'scam-like' advertisements), the amount of such advertising, and the reputation of the website to start with.

The idea of relating ad-aesthetics to the phased deterioration of attitudes is a relevant topic for applied research because many websites use advertising aggregators (out-sourcing their ad inventory management), and there are cases of large, well-known, trusted companies' websites inadvertently displaying advertising that appears to be suspicious, contains malware, or simply does not 'fit' with their perceived brand image and reputation. A study on this topic would allow businesses with an online presence to better manage their risk, by balancing the convenience of using a particular advertising approach with the potential consequences (e.g. at what point is it better to spend more time or money on an approach that will ensure brand image and prestige is upheld). Another way of referring to the practical benefits of such research is helping companies to manage perceived 'guilt by association', so that they do not inadvertently damage their brands in the eyes of consumers.

This thesis confirms the logic of Ha and McCann's (2008) pragmatic advertising paradigm. Although their literature-based paper was about ad clutter, they advocate the importance of focusing on the structural, functional, and information processing aspects of an ad (physical attributes that advertisers can control, consumer attitudes and orientations, and a person's limited ability to process information, leading to perceptual bias). These are all aspects that arose in primary research, and were noted as affecting perceived attitudes towards both the advertisements themselves, as well as the site or service they were displayed on.

Primary research found that production values are important in making an ad more appealing to users and increasing interaction with the ad, which can increase the perceived entertainment value of the website, and even distract the user so that they are not as conscious of the passage of time while they are forced to wait for the advertisement to finish. This again confirms Ha and

McCann's finding about the structural importance of an ad, and ad-designers have control over this.

This thesis found that advertising does not need to be the pariah of a content interaction experience online. There are a few key things that ad-supported services must consider to create a positive experience:

- Choose an appropriate ad format or combination of formats (i.e. not pop-ups) to minimise irritation, maintain a positive service/brand perception, and keep users from abandoning the website

- Keep the advertising short in duration (up to 10 seconds per ad) and keep the individual and cumulative amount during a user's visit proportionate to the content viewed, heard, or downloaded, so they feel they are getting value

- Show ads with good production values (or values that are consistent with the service's branding and prestige) that are relevant to the service's target market. More is not necessarily better

It is clear from the key factors noted above that effort must be put into production value. While this likely requires an investment of time and even additional money, it would seem that such an investment would enhance not only the service usage experience, but the chances that a consumer will actually interact with the advertisement.

6.2.1.4 Reputation (trust, perceived safety and reliability)

In addition to considering how advertising affects perceptions of a website's reliability (i.e. via aesthetics), technical considerations can also affect attitudes, as discussed in Section 3.2.1 and the group interview findings.

While it is clear in the literature that trust and technical reliability matter to consumers, primary research found that people will generally put up with poor service and suspicious aspects of services (e.g. advertising) in order to conveniently get what they want, without financial cost. Poor reliability (fake files, slow downloads, broken links) negatively affected attitudes toward music download services, as did suspicious advertising. An illustration of such tolerance can be found in the discussion of consequences of using illicit services (Section

5.1.3.2), where some illicit downloaders said they continued to use P2P services even after getting computer viruses.

It would be interesting to note where tolerance boundaries lie on this topic. For instance, some people who use illicit download services have had computer viruses that have made their computers unusable – some of these people have gone on to avoid illicit services, and others continue to use them. It would be interesting to understand the risk-reward assessment in such scenarios.

It could be argued that if a person feels they cannot pay for their music, they have no choice but to download illicitly and suffer any consequences that may result. It would be useful to explore the boundaries of tolerance for trust, reliability, and perceived safety in future research. Interestingly, while most illicit downloaders do not expect to be caught and punished, most have already had, or expect to get a computer virus as a result of using an illicit service. It would be interesting to know, of those who have ceased illicit downloading, whether more of them have been encouraged to stop because of their experience with computer viruses, versus their fear of prosecution.

6.2.2 What matters least and not at all

Extra features were found to matter less than convenience, ease of use, advertising, and reputation, and norms were found to be functionally irrelevant.

6.2.2.1 Extra features

Over the years, various trade and academic literature has suggested 'extra' features on a music download service would be much valued by users, for example, recommendations, news, social networking, and personalisation.

This thesis found that to be partly true. It was determined that users of content streaming and download services valued some features because of the convenience, utility, or entertainment value offered, however, 'extra' features did not actually appear to be important with respect to influencing the decision to use a new service. At best, extra features (beyond primary utilitarian features such as search functionality) were seen as secondary and minor considerations, i.e. as tie-breakers when choosing between two otherwise identical services.

This thesis extends the literature on music download services by distinguishing a difference between a feature simply being valued, and a feature being used in

the decision making process. In particular, this thesis sets these differences apart in the context of a free service, where extra features are not paid premiums of freebies, making it easier to evaluate the status of extras in their own right. This differentiation was explored at a high level, so it would therefore be useful for future research to explore this area in more detail to determine what specific secondary features might sway decisions to use a service (in a scenario where a user is choosing between two otherwise similar services), to what extent such features are important, any why they are valued/important. This would make for a very interesting study of consumer behaviour that may give additional insights into how people interact with music content online (e.g. touchpoints, referrals, linkages, and the nature/purpose of use such as individual or sharing).

Regarding social interactions, this thesis appears to be the first piece of academic literature to identify the usage context of a music download service as an important predictor of attitudes towards social interaction on the service. For example, a service can be a social network with music, or a social music service – each of these serves a different primary purpose.

Primary research found that users of music download services were not particularly interested in joining online communities focused on music. However, this was mainly in the context of participating in communities of people they did not know, rather than their existing social networks, which they actively shared music with online (as an aside to their other social networking interactions and activities online, rather than music being their primary activity). It would be interesting for further research to explore how music consumers interact with music on social networks (from discovering to listening to making recommendations) and when and why they decide to use social music services.

6.2.2.2 Norms and ethical views

In the literature review, it was found that the influence of norms in predictive behavioural models was generally inconclusive, save for situations that called for moral or ethical decisions to be made, where the literature then suggests that the opinion of valued others and one's own moral standards have weight in influencing one's intentions to perform a particular behaviour (e.g. Ajzen, Fishbein 1980, Davis 1985, Ajzen 1991). However, Clement et al. (2012:16) found, in their study of whether free legitimate alternatives to illicit downloading

might encourage file sharers to use legitimate services, that subjective norms had a "weak and inconsistent [effect] on the intent to engage in file sharing".

This thesis contributes to the literature on norms in a number of ways. Using music downloading as an example, and comparing the concept of the same theoretical service in an ethical and less ethical/unethical context, this thesis shows that, at best, norms appear to be relevant in predictive behaviour models only in particular situations, for example, where moral or ethical decisions are called for, or decisions that affect one's perception of his own standing, rank, or prestige amongst peers. In other situations, norms appear to be less relevant or even irrelevant.

While it was thought that norms would be relevant to the topic researched for this thesis, contrary to expectations, they were found not to have any significant or material influence on intention to download, despite research subjects acknowledging there are ethical issues at play when they choose to illicitly download. This appears to be explained by a few key things; the first being that illicit downloading is increasingly seen by young people as a common behaviour, and as per neutralization theory, illicit downloaders are able to assuage their guilt when their actions are in conflict with their ethical beliefs, distancing themselves from any perceived victim or consequence and reducing their own ethical dissonance (Strutton et al. 1994, Freestone, Mitchell 2004, Shang et al. 2008). Further contributing to this finding, and supporting neutralization theory, was the revelation that many young people in the primary research exercise felt that illicit downloading was 'not unethical', which may actually mean that while they are aware of ethical issues surrounding illicit downloading in wider society, they may in fact be bypassing any sort of internal call for ethical decision making, thereby reducing the opportunity for norms to exert an influence. Rank and prestige amongst peers did not appear to be a relevant factor affecting norms or norms' effect on intention for this thesis.

Readers should note that this study was focused on 15 to 35 year olds, and while there did not appear to be any significant discrepancies in the influence of norms by age, it is known that older consumers tend to have stronger normative views tending toward anti-piracy (e.g. Fetscherin, Lattemann 2007). This is likely explained by older consumers (who did not grow up with the Internet or digital technology) being used to paying for music as physical media, and younger

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consumers growing up and being socialised around a culture of free, intangible content on the Internet, though a smaller percentage of older consumers also download illicitly.

This thesis considered the premise of P2P downloaders migrating to a legitimate free platform, so that stakeholders such as artists, publishers, labels, and other music rights holders could be compensated for their work. It was initially thought that when given the choice between two free services – one illicit and one legitimate – ethical views would play a part (even if only a small one) in encouraging downloaders to switch to the legitimate service. Primary research found that a person may choose to use a particular music download service (legitimate or illicit, ad-supported or not) based on any number of factors, including but not limited to ethical views, convenience, financial considerations, and the selection of music offered. Norms, however, do not appear to be relevant in this decision. While primary research participants said given the choice of two similar services they would prefer to use the legitimate one, it was found that usage intentions were not driven simply based on a service being free legitimate, or industry approved. Downloaders' service preferences were found to be heavily dependent on other aspects, for example, perceived utility, so such statements of preference for a legitimate service (described as a preference rather than an intention) are not yet reliable enough to consider in a conceptual model, and would be interesting to explore in further research.

6.3   Perceptions of risk, and motivations to switch

Literature on switching behaviour discusses motivations to switch, as well as perceived switching costs (e.g. time, effort, loss of relationship, learning curves).

Perceived switching costs with respect to a music download service are more likely to include time and effort invested in finding a new service, transferring a music collection if required, and learning how to use a new service interface. Some legitimate services may store music in a file format that is not compatible with other services, requiring workarounds to convert the music files, preventing transfer altogether, or requiring (in the case of paid services), the user to upgrade their music file for a small fee so that the files are DRM-free.

Customers who have a longer relationship with a company are less likely to switch to a competitor, and have less sensitivity to cost and unmet expectations;

therefore it is important to build up a positive relationship with users to increase perceived switching costs (Lopez et al. 2006, N'Goala 2007). However, while dissatisfied users may leave one service for another, satisfied, variety-seeking users may switch service providers to try something new, even if not prompted by a negative precipitating incident.

Indeed, many of the group interview participants named services that they regularly used to find music. While not ruling out the possibility of trying a new, free legitimate ad-supported music download service, it was made clear that the new service would need to be as good or better than what they were currently using – not just from a financial perspective, but non-monetary costs as well. Marketing was also cited as an important factor that could encourage switching (or trialling of a new service), with some participants saying that they would want to hear in the media and from people they know that the new service is reliable and worthwhile.

Companies selling or giving away streaming or downloadable content can try to lock-in users in a variety of ways, including use of proprietary file formats, file compatibility, DRM, requiring users to have accounts and tying features such as wish lists and favourites to the user's account, or barring access without sign-in, controlling portability of media in the form of storage and transfer mechanisms, or making it difficult to convert files for use on a competing service or device.

It could be difficult for a new service to try to lock-in users by exerting control over storage or portability of files, because of the perceived costs and risks. Even for services without such risks, it would seem that managing potential users' perceptions is key, and marketing must be executed diligently and well. This thesis found that the legitimacy of a service is not a particularly strong driver, so there must be additional incentives (related to ease of use and usefulness) to encourage users to try such a service.

6.4   Summary

This chapter discussed the primary research findings from Chapter 5 in terms of what value, quality, and satisfaction mean for a free legitimate ad-supported music download service, and what affects attitudes toward such a service most, least, and not at all. It identified where this thesis' primary research findings agree with, challenge, and extend the body of academic literature.

The incentives and aspects of a service that have the potential to attract users have been discussed in this thesis, from an initial review of relevant literature, through to testing in three stages of primary research, and linking the two together in this chapter.

An appealing service marketed appropriately and marketed well stands a better chance of luring users of illicit services to a new legitimate platform. It is important that the service 'works' and meets expectations in that regard – promoting a new service's utility coupled with its ease of use would seem to be a very important consideration.

This thesis found expressed attitudes to be far more stable than expressed intentions, illustrating the need for reasoned, suitably underpinned academic research on consumer interaction with media content services. Its findings agree generally with the literature on switching behaviour, but show that when it comes to free music services, switching behaviour is a complex concept with many variables. Mapping the (potential) migration of users from one type of platform is not necessarily a linear equation. Further research will be able to use this thesis as a baseline to explore such variables in more detail, and build a more detailed equation, to better understand the complexity of the nature switching in this area.

Chapter 7 concludes by summarizing the key findings of this research, outlining how to apply them to industry, the original empirical and theoretical contributions this thesis makes, its limitations, and topics for further research.

Chapter 7: Conclusions

This chapter restates the research justification and objectives, and summarizes the key findings of this thesis. It outlines the original contributions that this research makes to the body of consumer behaviour literature, and recommends key considerations for industry to take into account in the design of a service. Lastly, it outlines some interesting topics for further research.

7.1   Filling an important gap in the literature

Chapter 2 showed that illicit music downloading has had a significant negative impact on music industry revenues in some key markets around the world. As discussed at the beginning of this thesis, much of the literature related to music in the online environment is concerned with music piracy, from reasons for doing it, to its impact on the wider music industry, to whether or not litigation has had any significant impact. Academic literature that considers how to increase revenues via innovation and new business models is limited in scope and quantity, and there is a distinct lack of literature related to the prospect of ad-supported (particularly download) services. Similarly, there is an abundance of literature comparing motivations to use illicit versus legitimate (free versus paid) services, but a lack of literature examining motivations to use legitimate versus illicit download services when both are free.

The literature that exists on innovation for legitimate services is biased towards financial and corporate perspectives, neglecting the consumer point of view, and failing to consider whether consumers would even be interested in such 'new' services in the first place. There is therefore a clear need for the type of insight that this thesis provides, and a clear gap that this thesis fills, as shown in Figure 32.

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	Free Download Services	**Paid Download Services**
Legitimate	Clement et al. (2012) and this thesis are the first pieces of literature to address this specific gap	Popular area of research
Illicit	Popular area of research	Uncommon service type

Figure 32: One of the gaps this thesis fills

Clement et al.'s study (2012) used a sample of American university students, and considered only intention to use a legitimate free music download service and actual behaviour. This thesis goes a number of steps further, by identifying the key characteristics that affect consumer attitudes toward the usage of an ad-supported music download service, the characteristics that affect perceived attractiveness of such a service, and their relative perceived importance/value.

An important aspect of this thesis is that it compares free with free, and identifies the key factors that are considered by downloaders when price is no longer an issue (a key consideration for many who use file sharing services). As such, it gives a better understanding of consumer attitudes in this space, so that industry can use this academically-grounded information to design services that can better foster positive attitudes, attract users (particularly from illicit services), and encourage user retention. This thesis is concerned with the movement of downloaders from the free illicit category to the free legitimate category (rather than from paid to free), in light of the challenges the industry faces with monetizing free consumption behaviour.

7.2   Answering the research aims and questions

This thesis aims to increase both academics' and industry's understanding of consumer attitudes toward free legitimate ad-supported music download services. Focusing on consumers in Canada, the USA, and the UK, it considers how consumers interact with music download services, what they look for in services (key characteristics), and how these key characteristics influence their attitudes toward using such a service.

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These aims have been achieved via the development of a conceptual model that identifies key characteristics, and illustrates their relationships and significance (see Figure 29).

Several research questions were presented at the start of this thesis. These have been answered in this thesis, with Chapters 3 and 5 iteratively identifying and validating attitudes and key characteristics, and Chapter 6 linking these findings with the literature and theory in relevant areas. Chapters 5 and 6 explain that a legitimate free, ad-supported music download service does indeed have the potential to be attractive to consumers, but that there are a number of caveats that must be kept in mind, as outlined in the section that follows. This section provides a brief summary of findings accompanying each question.

1. **What characteristics make a music download service attractive to consumers, and which characteristics are most important in influencing such views?**

Perceived trustworthiness of the service, the nature of advertising on the service, time delay, perceived adequacy of the service's music catalogue, freedom of use of the downloaded file, and ease of using the service affect attitudes toward a free, ad-supported music download service as follows:

- Trustworthiness of the service (in the context of advertisements, provision of personal information, and perceived safety). Users want to feel that they will be safe from viruses, malware, and breaches of privacy. They do not want to share information that they deem too personal or personally identifying, and the advertisements shown on a service affect their perceptions of its quality and trustworthiness.

- Advertising (in the context of trustworthiness and time delay). In addition to advertisements affecting attitudes toward the trustworthiness of a service, popups and long video advertisements are perceived as particularly intrusive. Short, simply displayed video advertisements or simply displayed static advertisements encourage more positive attitudes towards a service and the advertising on it.

- Time delay (in the context of the cost incurred to obtain music). Longer delays cause greater irritation, even when free music is being received in

exchange for the forced delay. Such negative attitudes can be mitigated by keeping advertisements short (5 to 10 seconds).

- Music catalogue (perception that the service has an adequately large catalogue). The size of a catalogue affects the perceived utility of a service. While this is only a relative concept thus far, generally, a free music download service is perceived as useful if it has at least some of the songs a user wants to download. Consumers have an aversion to using a service with very few songs they want, even if it is free, because the non-monetary cost of using the service would outweigh the reward.

- Freedom of use (ability to transfer a downloaded song to any personal listening device or computer). Most consumers will tolerate DRM on a service provided they can transfer downloaded songs to all their personal listening devices.

- Ease of use (in the context of an intuitive user interface) is an important characteristic of a service. A service being free should not be seen as an excuse to ignore usability, which can also be an important service differentiator.

Consumers can readily identify positive and negative experiences with many different types of music services, from legitimate free streaming, to paid and illicit download services. While each service has its pros and cons in the eyes of the user, the participants in the primary research exercise each had at least one service they preferred to use. They judged the services on the characteristics noted in the response to the first research question.

2. **How do these key characteristics and attitudes align contextually with consumer behaviour theories?**

No models were found that related directly to the topic of this thesis, so one needed to be developed or adapted. Taking a cue from other researchers who had used the Theory of Reasoned Action and Theory of Planned Behaviour for illicit music downloading, the approach taken for this thesis was to consider existing well-referenced predictive behavioural models that could be adapted so that they could be applied to the specific topic of this thesis, and to select the most relevant model as a starting point.

The two key areas of consumer behaviour theory that relate to this thesis' conclusions are the concept of service quality, and the Technology Acceptance Model. A set of generic quality dimensions for online services were identified in the literature review, and relevant elements of music services were then mapped to each quality dimension (see Table 22). The core of the Technology Acceptance Model (perceived usefulness and perceived ease of use) was used to examine what affects attitudes toward a music download service, because those core constructs were found to be a powerful feature of the model not accounted for in other predictive behavioural models such as the Theory of Reasoned Action.

3. Could a legitimate free, ad-supported music download service be attractive enough to potentially achieve mainstream success?

From a consumer behaviour point of view, a legitimate free, ad-supported music download service does have the potential to be attractive enough to achieve mainstream success, and to attract users of illicit free download services to a legitimate free platform, enabling industry to monetize their free consumption behaviour. However, the ad-supported service would need to be perceived as 'as good or better' than the services that consumers already use. Quality and utility are important, and ethical considerations and potential legal consequences are not significant motivations to switch from illicit services. Promotion of the service externally is also important. Success cannot be achieved if the target user base is not aware of the legitimate free options that are available. Key considerations for industry are outlined in Section 7.3.

7.3   Key considerations for industry

The final model presented in this thesis (Figure 29) serves as a starting point for further research, and from an applied perspective, can assist companies with designing and delivering appealing free music services to consumers, by providing a theoretically-grounded understanding of the key characteristics that influence attitudes towards such services. It is important for industry to understand what factors influence perceived usefulness and perceived ease of use of an ad-supported download service, not simply that usefulness and ease of use affect attitudes.

The music industry is competing with free. It is trying to sell consumers content with which they can interact in new and different ways, increasingly expect to be able to have for free, and can easily get for free online. Particularly for younger consumers (i.e. high school students), this thesis has shown that the allure of free, desirable music online, combined with wide availability and ease of obtaining it, means that the appetite for free music is unlikely to go away.

While illicit downloading will not be eradicated, this research does suggest that it is possible to monetize consumers' free music consumption behaviour by offering them use of a free service, provided they perceive that service as equalling or bettering what they currently use. To date, there have been a number of free, ad-supported music download services that have been launched, but none appear to have matched up well with the characteristics identified in the model outlined in this thesis, perhaps explaining why there does not yet appear to be a distinctly popular service of this type in the marketplace.

There are a number of points that industry should take into consideration when designing and marketing a service:

By definition, ad-supported services are dependent on advertising revenue for their survival. Contrary to popular belief, consumers do not necessarily detest online ads. If the advertisements are well-constructed, informative and/or entertaining, presented in an aesthetically pleasing way, minimally intrusive, appropriately short, somewhat relevant, and a reward (i.e. free music) is offered in return for the sacrifice/cost incurred by the user, many consumers appear to be quite open to forced advertising consumption, i.e. video pre-roll.

If video advertising is to be used before giving access to each download, it should be short (less than 10 seconds). If static advertising is to be used, it should be unobtrusive. Ads on the service should have high quality production values, be aesthetically pleasing, and from known brands or brands that appear to be trustworthy. This may require advertisers and/or their advertisements to be vetted. If advertisers on music download services put the same consideration and effort into their advertising as they do for traditional media (i.e. television), they could likely build much more valuable relationships with consumers, and the services they are featured on will likely benefit from more positive consumer attitudes. If the advertisements on a music download service appear to be

suspicious, consumers may still trust the service, though their attitudes toward the service will be negatively affected.

Service providers must also be aware of the necessity of striking a balance between collecting useful profiling information and making their users suspicious (or bored) by requesting personally identifying information, or too much information from users. A service should not ask for personally identifying information (i.e. address, phone number) if it is completely free to use, and where a service that is free to use deems personally identifying information important to collect, it should clearly state the justification for the request, in simple, easy to understand terms. If the service fails to do so, it risks driving users away altogether, or collecting fake information that is essentially useless. The service's users should be allowed to have control of their privacy online, and the service should not automatically make a user's intimate details or habits social (public) if they want to retain their users' confidence and trust.

The service's terms of use should be easy to understand, It should not take a long time to register or complete mandatory profile forms. The service should initially only ask for simple demographic information that is needed for pragmatic purposes, and if much more information is needed, users should be asked to fill out the rest of their 'profile' later, to reduce dissonance and goal interference.

The lack of an exhaustive music catalogue on a free service is not necessarily a deal-breaker, but having the 'right' songs on a service is important. While many consumers listen to Top 40 music, many of those same consumers also enjoy less mainstream music, and can become irritated when they are unable to find music from back-catalogues or are only able to find music from the most popular (superstar) artists of the moment. Consumers would appear to be happy with a free service that has a catalogue with some or most of the songs they want, but services must consider that the perception of adequacy is subjective (based on individuals' different tastes in music) and users do not want to spend a lot of time searching for songs that they ultimately find a service does not have.

Consumers dislike digital rights management and formats that are locked to specific hardware, but by and large, if they are allowed to put the music file they have downloaded onto all their personal listening devices (including computers), they will be tolerant of such limitations.

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Added value or 'extra' features only hold marginal value. Beyond being able to quickly and easily find and download music, features such as recommendations, biographies, artist news, and tour date information are not valuable in themselves. Extra features such as bios, a merchandise or music store, or social networking are secondary, and only make a marginal difference in a service's appeal, though it is important that these extra features are also well-designed if they are included as part of the service. If possible, a user should be allowed to customize the layout of the home page, for example to choose what service features are quickly accessible, or what Top 10 lists they wish to view.

Ease of use is important, and should not be underestimated. Similarly, the ability to quickly and easily search for desired music, and see relevant search results is an important, very basic aspect of a service. A simple, intuitive user interface contributes greatly to perceptions of ease of use. The design focus should be on the performance of key aspects of the service that affect consumer attitudes. It should be easy to navigate the service and search for music. Users should be able to search by many keywords. Relevant results should display. The download speed of the service should only be limited by the user's connection, not the service, and the interface should not be cluttered by extraneous features or advertising.

Consumers are unlikely to switch from their present download services unless they are affected seriously by viruses (even then some consumers still will not switch) or the new service offers something more appealing or more convenient than what they are already using. Even when illicit downloaders say they would prefer to use a legitimate free service if given the choice between that and an illicit free service, that expression of interest does not come at the expense of basic convenience, usefulness, or ease of use, and ethical motivations have little to no effect on switching intentions. This is a critical consideration given that many illicit downloaders are not afraid of or worried about potential litigation.

Light to medium volume illicit downloaders should be targeted as potential users, because heavy illicit downloaders are much less likely to switch to the type of service explored in this thesis. The service's external marketing should highlight that it is fast, easy to use, legal, safe, free, and songs can be kept forever. It should also highlight that is has music that people actually want, and is just as useful and convenient as the services already popular with consumers. It should

give consumers the opportunity to choose the file type they wish to download (by codec/bit rate) within reason, and avoid DRM if at all possible. If it is DRM-free, that should also be communicated. If the service looks useful and easy to use, and follows through on that expectation, consumers will have more positive attitudes toward it.

Finally, the service must deliver on its promises. When consumers have so much choice, and can easily switch between services, especially free ones, if they invest time in a service that is not what it says it is and falls below their expectations, they have little incentive to stay with or return to the service.

A significant barrier to attracting users is a lack of awareness. From a marketing perspective, a surprising finding of this thesis was the lack of awareness of free, ad-supported download services, especially in the United States, where a number of services have been launched. While it is arguably difficult to invest a substantial amount in marketing a new service that must pay royalties out of ad revenues (i.e. there is not a lot of money in the budget to start with unless it comes from investors), advertising can build up awareness and trust in the service, encouraging word of mouth and viral promotion. Given that the service is online, that also makes it easier to use relatively lower cost Internet marketing campaigns.

There is a risk that mass media or highly visible promotion of a service legitimately giving away music could draw the ire of industry partners (those who sell music as part of their business model). Papies et al. (2011) argue that it is unlikely that ad-supported services will cannibalize sales from paid service, however, their paper does not consider the effect of a mass marketing campaign for such a platform. The fact that industry is already experimenting with such models indicates that it is willing to accept this risk, though the lack of mass marketing could be due to financial reasons or hesitancy to overtly promote such a service for the reasons thus far noted.

7.3.1 Ideal versus currently available services

A number of key service characteristics were identified through primary research, as outlined in Chapter 5. Survey respondents were asked to rank five that were identified in the qualitative phase, with the following question: "If you were evaluating a music download service that gives you free music to keep forever, in

what order of importance would you rate the following characteristics". Figure 33 shows the ranking of these characteristics, from least important to most important, based on mean response ratings for each characteristic.

Most Important

◆ Large catalogue of music

◆ Freedom to transfer songs to any device

◆ Easy to Navigate

◆ Not forced to watch or listen to ads

◆ Service can recommend music
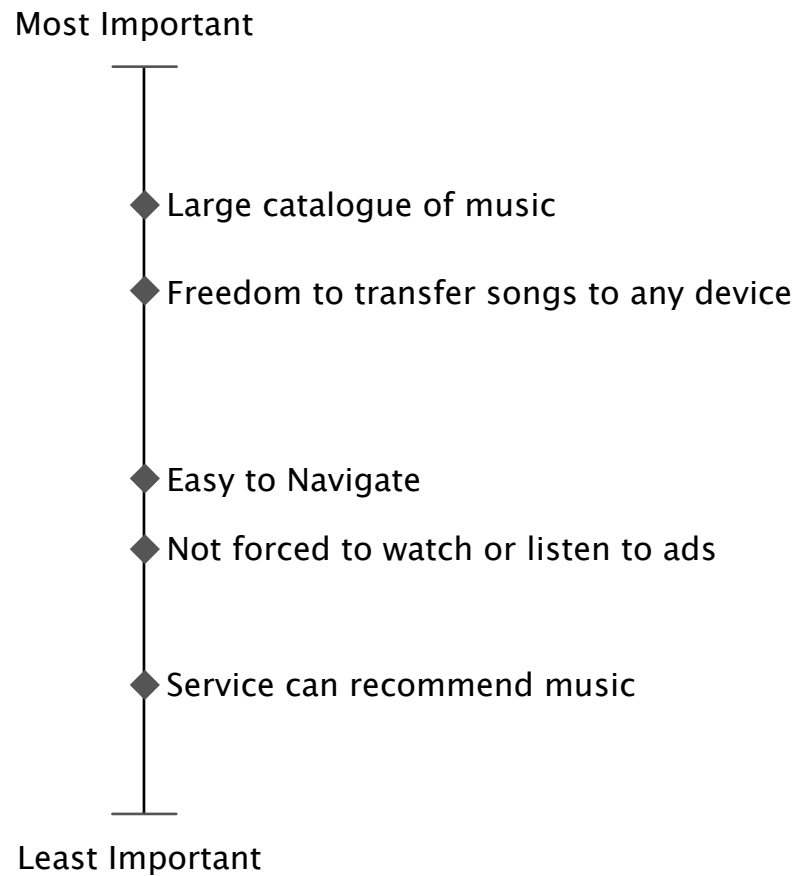
Least Important

Figure 33: Key service characteristics ranked from most important to least important

Quantitative research also found that requests for personal information and availability of songs (i.e. whether a service rations songs to users) were relevant in a consumer's evaluation of a service.

This section will now consider the key characteristics that consumers evaluate in an ad-supported music download service, and compare consumers' ideals for those characteristics with the actual nature of available services. A service's ability to recommend music was not seen by consumers as being particularly important in their evaluation, so this has not been included in the comparison of an ideal service versus those that are currently available.

Table 35 defines the ideal service characteristics for the purpose of comparison with existing and defunct services.

Characteristic	Ideal Service Behaviour
Availability of songs	This was identified as the most important service characteristic to consumers. A service should be perceived as having a large enough catalogue of freely available music. This includes both the volume of the music catalogue, and whether the songs are rationed or freely available. Both the size and quality of a music catalogue are subjective consumer evaluations, so for the purposes of comparison, a catalogue with less than 1 million songs is deemed to be inadequate in the sense that it is not competitive compared with alternative services. A service that restricts downloads to less than 1 per day (based on the definition in Chapter 5 of a medium volume downloader downloading up to 25 songs per month) is also deemed to be inadequate.
DRM and use restrictions	Users should be able to transfer music from their computer to up to 5 of their iPods and/or other personal music players.
File format	It should be possible to play the downloaded music on a wide range of devices, including iPods. If the music file cannot be transferred to both an iPod and non-Apple device, the service's provision will be deemed inadequate. Ideally the service should offer a selection of high quality compressed and uncompressed file formats (including up to CD quality), but this is not essential.
Ease of use	This is a subjective consumer evaluation, so for the purposes of comparison, ease of use is defined as freedom of file use (i.e. whether use is restricted based on file format), ability to freely download songs (i.e. whether the songs are rationed), and whether the service can be accessed on both Windows and Mac computers. If a service restricts use by file format or operating system, or rations music to less than 1 song per day, it is deemed to be inadequate.
Operating system	It should be possible to use the service with both Windows and Mac computer operating systems.
Time delay and intrusiveness of advertising	This is a subjective consumer evaluation, so for the purposes of comparison based on the findings in Chapter 5, pre-roll advertising must not display for more than 15 seconds, and pop-up or in-song advertising should not be used.
Requests for personal information	The service should not ask for personally identifiable information (e.g. full address, phone number), unless necessary and justifiable.

Table 35: Description of ideal characteristics for an ad-supported music download service

None of the free legitimate ad-supported services currently available matches all of the ideal characteristics identified in this thesis, but at the time of submitting this thesis, some of the services matched the ideal characteristics in different ways (see Table 43).

	SpiralFrog	Ruckus	We7	QTrax	Guvera	Free All Music
DOWNLOAD SERVICE STATUS	Defunct	Defunct	Defunct	Active	Active	Active
Large catalogue	800,000 songs	3 million songs	750,000 songs	Varies (in millions)	3 million songs	Not published
Availability of songs	Unlimited	Unlimited	Up to 500 per week*	Unlimited	Less than 5 per week	Less than 5 per week
DRM and use restrictions	Copy songs to up to 2 devices, no burning to CD. Monthly rights refresh required	No copying to devices, no burning to CD, only free until graduation	No restrictions	No copying to devices, no burning to CD. Monthly rights refresh required	No restrictions	No restrictions
File format	128k Protected WMA	128k Protected WMA	192kb MP3	128k Protected WMA	256kb and 320kb MP3	256kb MP3
Operating system	Windows only	Windows only	n/a	Windows. Not fully compatible with Macs	n/a	n/a
Time delay and intrusiveness of advertising	Banner ads, 90 second video pre-roll	Video pre-roll, other video	Banners, 10 second audio ad inserted at start of song for 4 weeks, banner ads	Banner ads	Branded player interface, banner ads	18 second video pre-roll, forced user endorsements

■ Meets ideal behaviour

■ Does not meet ideal behaviour

■ Information not available

* The downloads have audio ads embedded for a 4 week period

Table 36: A comparison of available service characteristics with the ideal

The following paragraphs will discuss currently available services, in relation to the ideal behaviours described in Table 35.

QTrax, the oldest of the surviving ad-supported services, only permits users to listen to downloaded songs via the service's player on their personal computer, while the user is connected to the Internet. The player is difficult to install, and is not compatible with all of the operating systems that it lists. While the service severely restricts how users can listen to downloaded files, unlike Guvera and Free All Music, QTrax does not seem to have any download limits, which is an important utility characteristic. Despite being a free service, the company's privacy policy states that its requests for personal information can include a

user's full address and phone number, without clearly explaining why such personal information is required.

Guvera matches a number of ideal service characteristics. The service is web-based, so is not dependent on a computer's operating system, and users are free to do what they like with their DRM-free downloaded music. The service attempts to minimize perceived goal interference by using branded music players rather than forcing users to watch video pre-roll, and was the first mainstream free ad-supported service to take this approach. Like QTrax, despite Guvera being a free service, the company's requests for personal information include a user's full address, phone number, and date of birth, without clearly explaining why such information is needed when the service is free to use.

While Guvera attempts to minimize time disruption, and gives users freedom of use of their files, a significant drawback is that the service rations music. Not all songs in Guvera's catalogue can be downloaded, and the service does not make download entitlements or the timing of such entitlements clear. While the service provides at least one free download upon registration (but apparently not more than two or three), it is not clear, once the initial downloads are used, when the next free download will be made available. This uncertainty for users would seem to impact the perceived utility of the service.

Free All Music also matches a number of ideal service characteristics, and like Guvera, has taken a different, innovative approach to its service. Free All Music is essentially a service that is dependent on Facebook, with the company's website address diverting to its Facebook page, and the service requiring users to have a Facebook account. The company does not appear to have an easily accessible privacy policy, and that may be because the service appears to use Facebook for its data collection and analytics. Like Guvera, Free All Music is web-based, so not dependent on a computer's operating system, and users are free to do what they like with their downloaded music. The service offers the highest quality downloads of any of the three active services, however, it also rations music as Guvera does, only permitting users to download one song at a time, but informing users when their next free download is available to use. In order to get free music on Free All Music, users must 'Like' sponsoring brands' Facebook pages and/or watch approximately 18 seconds of pre-roll video before they can download a song.

It would seem that the biggest difficultly facing currently available services is being able to strike a balance between freedom of use and availability of music downloads. The one active service that explicitly allows unlimited downloads (QTrax) only permits users to listen to those downloads on their personal computer, and apparently (according to the company's technical support team) only while connected to the Internet. The other two active services that allow users to transfer their downloads to any device (Guvera, Free All Music) also ration downloads rather severely, allowing users to download only one song at a time, without always explaining how or when one's next free download will become available.

The latter two services have taken this approach because they operate on a fully-funded basis, where the service pays market rates for music downloads (i.e. in the way that Apple pays labels when a customer downloads music from the iTunes store). The advertisers on the services essentially cover the cost of the downloads, meaning that the services can only make downloads available when an advertiser has agreed to cover the cost of a download.

From Table 43, there appears to be a pattern to services. Services that offer files that can be used in an unrestricted way on any device, limit the number of downloads available to users, and services that allow unlimited or near-unlimited downloads restrict how the files can be used. Literature on multi-sided networks (see Section 2.4) suggests that a service that rations songs to users is likely to fail because it would offer potentially little value to either users or advertisers. Similarly, a service that fails to secure licensing agreements with record labels would end up with a reduced music catalogue, which in turn would provide diminished value to users. It is difficult for a person to become a regular or repeat user of a download service if they are not sure how many downloads they are entitled to, or when they are entitled to them. It is likewise difficult for a person to be a regular user of a service if they are not confident they will be able to find the music they are looking for. Of the two most progressive services available (Guvera and Free All Music), it would seem that the rationing of music would have a significant effect on the perceived utility of such a service.

The only service that allowed near-unlimited downloading of MP3 files was the now defunct We7, which allowed up to 500 free downloads per week. However, all free downloads on the service carried in-song advertising for at least a 4 week

period, so in a sense, the user was not actually getting an ad-free unrestricted copy of the track.

Section 7.3.2 continues with this discussion of ideal versus current services, adding the perspective of industry veterans.

7.3.2 Industry views on the viability of consumers' ideal service characteristics

Four senior members of the music industry with international experience (including Canada, the USA, and the UK) were interviewed at the time of submitting this thesis, to discuss the findings of this thesis and whether an ad-supported service that attempts to meet consumers' ideal wants could be viable. The semi-structured, informal interviews were conducted by telephone, and lasted between 40 and 60 minutes. The interviews were structured around the characteristics listed in Table 36 and analyzed using manual thematic analysis, as discussed in Section 4.3.2.3 .

Table 37 shows a description of each participant's professional background.

Code	Professional Background of Participant
Participant 1	Former senior label executive and streaming service executive, with over 25 years' experience in the music industry, with global coverage
Participant 2	Former senior label executive with over 30 years' experience predominantly in North America
Participant 3	Early adopter of music services and technology with 45 years' global experience in music production, systems design, and research
Participant 4	Senior publishing executive with over 25 years' experience in the music industry, and global industry coverage

Table 37: Industry participant codes

The interview data is outlined below, arranged in the order presented in Table 36.

Large music catalogue and availability of songs

In earlier primary research, many participants mentioned not being able to find the music they were looking for, even on top streaming and download services,

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whether it was new release Top 40 or independent music. An interesting question about music catalogues came out of this topic in the group interviews and online survey: 'how big is big enough?'. This is a subjective judgment that can vary by a consumer's personal taste in music, as well as their listening habits.

Participant 1 in the follow-up industry interviews referred to the concept of "curation" on a service, describing it thus: "whether my tastes are narrow or broad, do I think a service can deliver music that I consistently like". He said that he did not know any ad-supported service that "does that quite right yet". Industry members confirmed that it can be a challenge for a service to build a large and/or complete catalogue of music, for various reasons including artists' own preference not to offer their songs as digital downloads or streams, or in the case of soundtracks, the complexities of rights ownership.

Participant 2 said "Not having content sets services back", and that to be useful (particularly in the case of streaming and subscription-based services), a service needs about 95% of available content. He said this requires the service to have deals with all the major labels, as well as local (independent) labels, so that both globally popular music and locally relevant music is available. This aligns with findings in the qualitative research stage, where many participants noted that they often could not find independent music they were looking for, through legitimate channels. It also suggests that a key factor affecting viability is the ability to sign deals with majors.

Participant 2 mentioned that rationing songs on a service presented a large inconvenience to consumers.

Participant 4 said a service "has to keep making royalty payments whether they're drip feeding songs [to their users] or not", taking the view that services are likely rationing music as a hook, to keep users coming back by restricting the flow of goods, and also (in the case of streaming services), to upsell paid versions of the service. "It's a lot more marketing now, than anything," he said. "Their goal is to sell subscriptions".

DRM and use restrictions

Interestingly, the views were split for DRM, even between the participants who had experience as label executives.

Table 36 shows that services that do not use DRM ration their songs, and services that do use DRM allow unlimited or near-unlimited downloads. Industry participants were asked why they thought this pattern might exist from a business model point of view, and whether it would be realistic for a service to be able to offer a large number of DRM-free downloads to its users. It is also important to note that the two most recent active services do not use DRM.

The issue regarding DRM and service viability appeared to be one of pleasing rights holders, more than anything else.

Participant 1 said that he saw DRM as "an imposition on the consumer", but at the same time as something that "is necessary as a commercial proposition, and is necessary at a licensing level", with respect to getting rights holders on board with free services. He stressed that many music rights holders are still concerned about instilling a sense of value in music, and that even if a label is still getting paid, value differentiation between a track that a person pays for and one they download or stream for free is still an important consideration for some stakeholders.

Participant 2 said that "people aren't used to being told anymore that you can or can't do this or can or can't do that", and that he was not convinced that services with (strict) DRM are growing or have the potential to grow, because "people will walk away [if they don't like DRM] because there are better places to go with better experiences".

Participant 4 explained that there were two sides to the issue, though he was not in favour of DRM as a restrictive tool. He described the Sony rootkit mentioned in Section 3.2.2.8 as "a fiasco", and said that restricting what a person can do with a file simply causes unwanted interference in their music listening experience, adding "DRM should be about management, like the name says, not restrictions". He said industry is "just trying make sure we're paid properly", by enabling rights holders to track song usage and manage rights, and that it should be used in that sort of transparent way, for the purpose of administering royalties.

Participant 3 said "I don't think there's a need for DRM anymore…what people want is free choice, and more than anything else, a convenient interface...I think DRM is over because there's not a DRM methodology [out there...] that hasn't been cracked [or about to be cracked]". He implied that even if industry viewed

DRM as a value-preserving necessity, "Hollywood insists on strong DRM […but] it's crackable".

Given that the services shown in Table 36 that use DRM offer files that are not compatible with iPods, this suggests that the use of DRM on a service would significantly limit the service's economic prospects, since it would as a result be useless to many consumers.

File formats

Consumers who participated in primary research, particularly older, employed participants, mentioned that they would ideally like to see a variety of audio file formats available on a service, and audio files offered at different levels of quality, to suit their tastes.

In consideration of the value argument that industry participants have mentioned now and in the past (including enticing users to upgrade to paid versions of services), the follow-up industry participants were asked to comment on whether they thought this was something that consumers would value, and why a service may or may not to offer such options to its users.

Participant 3 said it would be nice if people had more of a choice to listen to higher quality file formats, adding that this was only a matter of time, because "the future is higher resolution and the future is much faster [Internet] speeds". He noted that paid services can use this as a quality differentiator. Participant 4 mentioned that even if cost is an issue, technology and bandwidth tend to get cheaper over time, and services can hold off on delivering higher quality formats until it becomes affordable for them.

Participant 1 said that featuring relatively higher quality options on paid services helps with instilling a sense of value, and "differentiation between paid and free services", which can help to reassure music rights holders who are particularly concerned with the value aspect. Executives have previously said that labels started offering higher quality files on services to attract people away from illicit ones (Harris 2007), for example, iTunes moving predominantly to 256kb DRM-free music files, rather than their previous standard of 128kb with DRM, and charging a 30 cent premium on the higher quality tracks. Participant 1 suggested that paid services may continue to differentiate on quality, saying "now that we

have people investing $300 or $400 in headphones and seeking higher audio quality…I think [this] will inevitably lead to a demand for higher quality formats; but I don't think that will transfer to free [services]".

Participant 1 also said that from an economic standpoint, ad-supported download services would be unlikely to have high quality file formats such as uncompressed audio, because "that would radically increase the bandwidth needed to download a file", and as such, would reduce a service's profitability as a result of increased transmission costs.

Requests for personal information

The more information a service can get about its users, the more value the service can deliver to advertisers. However, industry members acknowledged the difficulty of balancing the collection of demographic and personal information for advertisers, with users' desire for personal privacy and users not wanting to spend a lot of time filling out forms on a site. The discussions with industry suggest that there is no need for a free service to ask for personally identifiable information such as full address or phone number if such information is not required in the actual use or administration of the service, and that services may be particularly keen to amass large and valuable data sets on their users because there may be a financial incentive (e.g. selling the data on to direct marketers, or using the data to increase the company's value in the way that Facebook has).

Participant 4 said he did not think that requests for personally identifiable information were well enough justified by (free) services. Regarding alternative ways of collecting information on users, he said a user's song choices can provide some demographic information, but online music services are targeting for ads, not musical tastes, so additional information is still needed from users. He also noted that a person's tastes in music can be diverse, so using a person's music downloads (and as another industry member pointed out, IP address and ISP information) to construct a picture of an individual user, will provide only a best guess that is "not very fine" in terms of desired ad targeting.

Participant 1 advised that there are basic rules a service should keep in mind, saying "you can't ask for it [demographic/personal information] all at once", and that services should "ask for it one piece at a time (over a period of time), and

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always offer them (the user) the option not to give it to you", to avoid annoying or alienating users. He acknowledged the problem of users providing fake information, saying that in the USA, the Californian postcode 90210 (from the hit television show Beverly Hills 90210) is the top fake ZIP code provided. While mentioning that information is important to advertisers, and therefore important for a service to collect, he also said that scale is vitally important to advertisers and that "Customer acquisition trumps customer information. I would rather have a website with 100 million users and little or no information [about them] than a website with 1 million users I knew everything about".

In his explanation of scale, Participant 1 explained that ad buyers want to go to services that have the largest impressionable target audience. He said that a service can have a great deal of information about its users, but if the service cannot deliver scale to an advertiser, the data the service has collected on its users becomes largely irrelevant, because it is not worth an ad buyer's while to place (targeted) ads on the service if not many people will see them. In that sense, that is where more value may lie in a service with 100 million users than one with 1 million.

Advertising

The industry members said that advertising perceived as long, intrusive, or excessive is an important consideration from the point of view of a consumer's experience on a service, because as the participants put it, "nobody's going to be sitting around through ads" and "nobody wants to watch ads". They all cited personal examples of being frustrated by excessive advertising online (while trying to listen to music and watch video clips), on the radio, and to a lesser extent, on television.

Participant 2 was not a fan of ad-supported models, saying that consumers are ad-averse, and the burden of sitting through advertising was such that he believed many people would opt for paid subscription streaming services instead, in order to avoid ads for what he said was a relatively low monthly fee.

The economic complexity of the ad-supported service model, as discussed in relation to multi-sided (economic) networks in Section 2.4, seemed to be the most significant factor affecting the viability of a service.

Participant 1 said that ad-supported streaming services have proven to be viable as a business model, but that he did not currently see a way to offer an ad-supported music download service that would be economically viable. For example, he said the biggest challenge to viability is how a service can manage to "generate enough ad revenue to pay for the downloads" and cover upfront royalty payments. He said in order to cover the costs associated with just one song download, "at standard market advertising rates, a person has to watch a lot of ads to get to that point [where the ad revenue pays for the download]". He said "I don't even know how one song a day is viable. If a person downloads just one song, that means that the service has to generate [approximately] $1 in revenue for that one consumer". He said that is a very difficult proposition considering that that can equate (depending on the price of the advertising on the service) to 1000 ad impressions or 100 minutes of video. "It's hard for me to envisage ad-supported download services being viable given today's licensing environment, and in the longer term, unless there's a deep sponsorship mechanism…or changes in the economics of music downloading" (e.g. royalties).

Participants 1 and 2 agreed that it is also a challenge to get users to interact with advertising without alienating them. Participant 2 mentioned that some radio stations now have 7 minute commercial breaks, and that in live television sports, which he said is about the only television format where people cannot (practically) skip commercials, the structure of how games are played on the field and on the ice has actually changed to accommodate an increase in television advertising, so that networks can maximize revenue.

Participant 4 said that "On radio, music is just the noise between advertising", but that the nature of radio "is definitely going to change", with changing consumer behaviour and a changing business environment. He pointed out that despite the increasing level of advertising, an advantage of terrestrial radio over streaming services or satellite radio is that people tend to develop a relationship with radio DJs, and DJs offer a valuable curation service to listeners. "You don't get that from putting on a CD, you don't get that from streaming something," he said.

Participant 1 explained that it is important that ads on a service are presented in a way that encourages click-throughs. As an example, he said if a user can minimize their music player while ads are showing, click-through rates "plummet", which means the value of the ad inventory on the service also declines. This

reduces the ability of the service to generate ad revenue, because if ads on the service get low click-through rates, the advertising displayed on it will be worth much less to ad buyers, because it will generate fewer leads. Participant 2 said that young people especially "do six things at once" these days, and that they were unlikely to sit and pay attention to an ad, or to engage with it.

Service viability

Participant 1 said that streaming services have proven their viability and that such services are "excellent mechanisms to get people introduced to new music", but said "There's enough of a distortion between the cost of goods and revenue from ad units that it [an ad-supported download service] doesn't seem like a viable model to me". He says that Pandora, a leading streaming service, sells hundreds of millions of dollars of ads, and still pays out two-thirds of its revenue in royalties. Given that download services pay higher royalties than streaming services, he said the viability of an ad-supported download service would be unlikely in today's environment.

Participant 4 said that, while unsure of the scale, well-known companies continue to place ads on services used for illicit P2P file sharing, providing income for those services. This suggests that ad money is available, but that advertisers are gravitating towards services with scale – illicit services may find it easier to achieve scale given that they face lower overheads than a legitimate channel that must make royalty payments. It is worth noting that a service itself is not necessarily illicit simply because people can use it to file share. National television broadcasters, including the Norwegian Broadcasting Corporation and the Canadian Broadcasting Corporation, have used BitTorrent to distribute their content legitimately, for example.

Participant 3 said it seems Spotify cannot afford to pay more money even though others say they pay far too little, but that the revenue the service generates from ad-supported streaming is "so small, it doesn't constitute a replacement for CD [revenue]", adding "Spotify is successful. Whether they're making enough money, …I can't answer that".

Participant 4 said rights holders make "micro" amounts from streaming services, and that "ad-supported doesn't pay much". He said that the services "try to make the content worth nothing" in terms of arguing rates and their obligation to pay

royalties, so that they can support their business models, adding "if this is their argument, then somewhere along the line, the ad-supported model can't be working". He says from a viability perspective a key question is "why are [services] losing so much money [while] paying so little in royalties". He noted that services "all want to try to lower the rates worldwide" to reduce the money they pay out in royalties, and that "you can't set the rule for the entire world out of one country", so services have to fight in each territory, to try to manage precedent setting in a way that is favourable to themselves.

Participant 2 said he did not know of any ad-supported download services "that are still going that are viable, and he was "not convinced any sort of advertising model is going to work", in part because he thought many people are now so averse to advertising (students included), that there are "not enough" people willing to sit through ads or have their downloads rationed to make it work. Participant 4 said that consumers' attitudes and tolerances were changing, as were their expectations and preferences related to audio quality, delivery mechanisms, and attitudes towards music rights holders. Participants 2 and 4 said that people are getting to the point where would rather just pay to use a service in order to avoid ads.

With respect to viability, Participant 4 said "It's not viable. Most of these companies are struggling to say alive, and working to get bought out" (e.g. seeing themselves as being able to do what Facebook did with data and network monetization, and cash in). He added that industry has tended to say "file sharing broke the industry" and that the industry needed to be "fixed", but that that view is misguided, because the industry "changed" rather than breaking or needing fixing. "At this point, no one single service works," he said. "One model doesn't work. It's a combination [of models] now".

Creating a sense of value for a music track is still important to music rights holders and content providers, and many content providers are resistant to the idea of having a substitute to paid services, said Participant 1, because content providers don't want to "teach consumers undesired behaviour", and they do not want music "to be valued in ad units". Participant 1 said that labels are not keen to place value in potentially cannibalistic services. Interestingly, while there is an argument about rights holders' desire to communicate value, Participant 2 said "Industry (labels) gets paid anyway" through upfront royalty pre-payments, so ad-

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supported services do not directly affect labels financially. The industry executives said that rights holders will always require pre-payment on royalties, because labels have upfront costs, and also have to pay their artists for plays on a service whether the service has paid the label yet or not. These royalty advances to labels are individual to services, and can be all-cash, cash and equity, or rolling advances, where a service pays an installment and recoups it, then repeats that cycle.

The pre-payments, which can be in the millions of dollars, can represent a substantial barrier to a new service trying to get off the ground, but at the same time, also serve as a viability filter for labels, which are increasingly resource constrained, say the executives. The participants said negotiations are a "long, slow process" that can involve a complex network of stakeholders, and every deal is different, because even a small change in the innovation of an offering can mean a material change in the deal's complexity. The participants said the more substantial the royalty pre-payment a service can make, the more likely rights holders are to be comfortable with the viability of the business model.

Participants 1 and 2 said labels get "dozens of requests a week" from people claiming they have the next big disruptive service that can make the music industry a lot of money or "save the music industry". They said that labels would spend a lot of time meeting with people about potential deals, and invest money (in the six-figures range) in due diligence, lawyers, account managers, and supply chain setup, "and some of the companies would never end up launching", leaving the labels on the hook financially. "We don't want to put companies out of business before they start" said Participant 2, but as a result of the financial risk, pre-payments became a "global policy", with the participants saying that royalty advances to labels serve as a filter, to weed out proposals that don't have enough backing to move to the next stage, and to cover labels' upfront costs.

Comparison with previous industry interviews

It is interesting to note how the passage of time has affected industry's views on the potential viability of ad-supported download services, when considering the discussions outlined earlier in this section, and those in Section 4.3.1 that took place at the beginning of the primary research exercise. Industry's views for the most part now seem to be more closely aligned with consumers', particularly

where tolerance to advertising is concerned. Where, in the past, some industry members though that some level of pre-roll video might be acceptable and others expressed concerns that consumers would not accept such delays, the views of executives today are near-unanimous, with industry members openly stating that people do not want to and are not likely to sit through (pre-roll) advertising. Some have noted that advertising online and in broadcast media has become so pervasive that consumers are becoming increasingly alienated by most online advertising. Industry views (including participants' own personal experiences) suggest that the increasing perceived cost of forced advertising may be fast outweighing the perceived benefits of free content. As one industry member noted, while he would gladly subscribe to a number of media channels he visited online on a regular basis so that he could avoid having to watch advertising, some of them had no subscription product available.

In other areas, industry views are just as split as they were at the start of this thesis, specifically in relation to DRM, with some people supporting it in principle/theory, and others saying it is completely unnecessary. There is still a question in the minds of industry members about the value of music, and whether that needs to be communicated to consumers directly, indirectly, or at all. On this topic, it is also worth considering what is more important – the principle of conveying value in a song download – or stakeholders' collective bottom lines, when stakeholders get paid by an ad-supported service regardless. Some still say that value is an important factor (e.g. using that as a justification for DRM), and others think the argument is a largely philosophical one that, to consumers, is outdated and irrelevant to an extent. It may well be that consumers are in a sort of post-value era so far as music tracks are concerned, where music has become commoditized and consumers now value the service experience (e.g. ease of getting music) over the music itself, in the sense that the value of music may now be implicit/taken for granted, because so much of it is available for free, whether through illicit or legitimate channels.

The argument some had previously with fragmentation in the ad market still exists, although it appears now to be more specifically referred to as the value of ad inventory (in any case, the two concepts are directly related, with fragmentation affecting inventory value). Services such as Pandora and Guvera have shown that they can attract higher value advertising, either by volume, or brand prestige of the product in the ad, however, there is also much clearer

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consensus that consumers are not willing to sit through advertising, particularly on download services, and this affects the economics of the advertising on a service.

One of industry's worries a few years ago was whether enough users of freemium services' could be converted to paid versions of the service. While upselling was taking place, there was debate about its sustainability. Although industry would like conversion rates to be higher than they are at present, there appears to be consensus that the results look more promising now than they did 3 to 5 years ago.

There is still skepticism about how an ad-supported download service can ever recoup enough from in-service advertising to cover its costs. While there was not much speculation by industry on this at the start of this research because of the newness of services, enough years have passed and enough services have come and gone and re-invented themselves, that they can now make more conclusive comments and cite evidence of what has worked (e.g. streaming services such as Pandora) and what has not.

With respect to the main challenges currently affecting the potential viability of an ad-supported music download service, key themes emerged as shown in Table 38.

Theme	Description
Cost of developing and running the service	The cost of skilled labour (managers/executives, software developers, account managers, legal representation) and technical equipment and infrastructure can be expensive, and would need to be recouped through ad revenue
Securing an adequate music catalogue	The service needs to be able to sign deals with all the major labels, and local/independent ones to offer a useful music catalogue to its users
Royalty payments	Upfront and ongoing royalty payments can be substantial, and need to be recouped through ad revenue
Ability to attract a critical mass of users	A service's ability to attract users is hampered by users' potential unwillingness to sit through advertising. In the case of services with less intrusive advertising, rationing songs may discourage use of the service
Ability to attract sufficient advertising	Setup and running costs for an ad-supported service need to be paid back through ad revenue, and this is industry's biggest point of skepticism regarding the viability of ad-supported download services. A service needs to facilitate user interaction with advertising in a way acceptable to users, so that the value of its ad inventory does not decline. Additionally, a service needs to carry enough advertising so that the user is not repeatedly seeing the same advertisements. Securing sufficient high quality/high value advertising and stimulating user interactions with the advertising is a critical hurdle for services to overcome

Table 38:Key themes surfaced from follow-up industry interviews

Figure 34 and Figure 35 describe the economic tensions present as a result of the challenges outlined in Table 38, specifically with relation to attracting users and advertisers and the service being able to generate income as a result. These relationships and tensions, as they relate to multi-sided networks, are shown for both ad-supported streaming services (Figure 34 and Table 39) and ad-supported download services (Figure 35 and Table 40). The key tensions in each network are at Points 3 and 6, as they relate to the royalties payable to rights holders, and the revenue required by the service to stay solvent. The differences between these points, explained in Table 39 and Table 40, show why ad-supported streaming services are more likely to be viable than ad-supported download services.
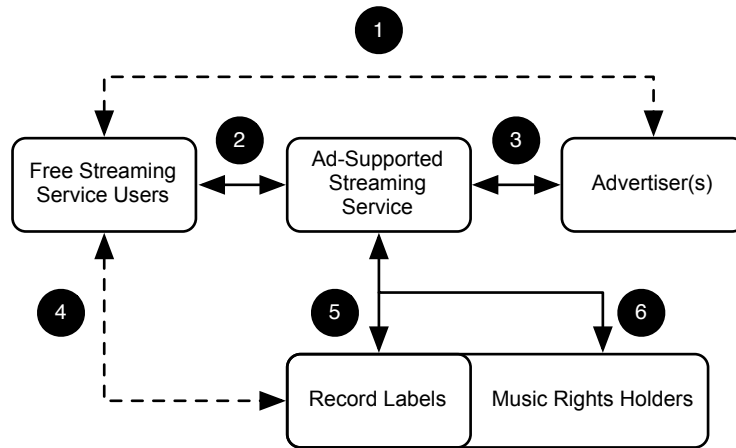
Figure 34: A multi-sided network illustration of key challenges to the viability of an ad-supported streaming service

Construct	Description of Dependency
1	The more active users a service has, the more valuable the service is to advertisers. The more advertising a service has, the greater the service's ability to deliver a wide(r) selection of music and listening choices/features
2	Users need the service in order to obtain free music, and the service needs users in order to remain economically viable
3	Advertisers need the service in order to reach consumers, and the service needs advertisers in order to remain economically viable. Advertising revenue for a streaming service is more likely to cover the service platform's costs, because streaming royalties are charged at a rate of a fraction of a penny per stream
4	Users need record labels to be involved because record labels license their catalogues to the service, which impacts the breadth and depth of music available to users
5	Record labels need the service in order to monetize their music catalogues. The service needs record labels in order to provide an adequate catalogue to its users. To be viable, a service must have licensing agreements with all the major labels, as well as key local/ independent labels, in order to be relevant to users. Record labels are also included as music rights holders
6	Music rights holders need the service to generate income for their stakeholders. The service depends on rights holders to agree to economically viable royalty rates (currently a fraction of a penny per stream, and substantially less than is charged for terrestrial radio)

Table 39: Construct description for a multi-sided network illustration of key challenges to the viability of an ad-supported streaming service
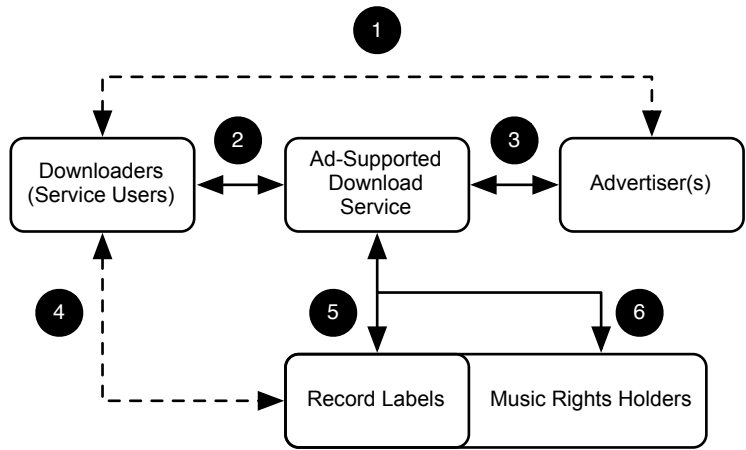
Figure 35: A multi-sided network illustration of key challenges to the viability of an ad-supported download service

Construct	Description of Dependency
1	The more active users a service has, the more valuable the service is to advertisers. The more advertising a service has, the greater the number of downloads the service can provide to its users
2	Users need the service in order to obtain free music, and the service needs users in order to remain economically viable
3	Advertisers need the service in order to reach consumers, and the service needs advertisers in order to remain economically viable. Royalty rates for download services are substantially higher than for streaming services, thus advertising revenue is less likely to cover the service platform's costs
4	Users need record labels to be involved because record labels license their catalogues to the service, which impacts the breadth and depth of music available to users
5	Record labels need the service in order to monetize their music catalogues. The service needs record labels in order to provide an adequate catalogue to its users. To be viable, a service must have licensing agreements with all the major labels, as well as key local/ independent labels, in order to be relevant to users. Record labels are also included as music rights holders
6	Music rights holders need the service to generate income for their stakeholders. The service depends on rights holders to agree to economically viable royalty rates, which for a free download service, are the same as they would be for a paid download service

Table 40: Construct description for a multi-sided network illustration of key challenges to the viability of an ad-supported download service

7.3.3 Viability of a free legitimate ad-supported music download service

Industry has for the most part agreed that ad-supported streaming services have proven their popularity and arguably their short to medium term viability, from a financial point of view. While some streaming services such as Pandora have enjoyed success, rights holders are generally not satisfied with the financial compensation they receive from such legitimate free services.

It seems to be a utopian ideal that industry can recover revenues to pre-digital/pre-file sharing levels. Consumer behaviour has changed significantly in the last decade, continues to change, and will continue to change with the introduction of innovative new technology. Industry needs to adjust to its new reality, but at the same time, needs to continue working on monetizing its assets by any reasonable means, as it is clear that the way music is valued by consumers is changing (i.e. the music itself has become commoditized and the value is in the experience of listening to or obtaining the music through a channel). It may be that industry needs to re-conceptualize the way it looks at the value of music to consumers.

Streaming services pay much lower royalties than a download service pays per download, which brings into question the ability of a free, ad-supported music download service to remain solvent. On a streaming service, users typically have the option of upgrading to a premium paid version, which may offer better quality audio, remove advertising, or offer additional features. There appears to be no evidence that users on a free download service would pay for the music they have downloaded, and it would not seem to make sense for users to pay for any of their music if a service offered unlimited downloads (especially when the user has no willingness to pay in the first place). However, while rationing music on a free download service appears to be off-putting to users, offering the ability to buy additional music on the service, beyond the rationed amount (e.g. at full price with no advertising, or for a discount off standard industry pricing with a subscription) might be of value. As a further example, perhaps users could purchase the equivalent of a membership card to a download service, entitling purchase discounts (e.g. members can download as many tracks as they like, for 79 cents instead of 99 cents). Perhaps streaming services could incorporate free downloads, for example, users who exhibit the most desirable behaviour might

be offered a free download of their choice once a month, which would serve as a reward to reinforce desired behaviour, and an incentive to keep using the service.

Nevertheless, for any ad-supported service, an important balance needs to be struck between the type and amount of advertising forced upon the user, and the need to generate revenue and scale.

The onus is on the service to secure and make available a sufficiently large DRM-free catalogue for users, with desired file formats (the latter is a less pressing issue for consumers), which is achievable, according to industry sources. However, there does not yet appear to be a viable way for free download services to cover their royalty costs and overheads purely through advertising, as evidenced by those that are currently active facing multi-million dollar losses.

It is vital that ad-supported services have users that interact with their advertising, to preserve the economic viability of the service, and it is clear that improvements need to be made to encourage greater levels of user interactivity in this respect.

Additional research would be worthwhile, to consider, in greater depth, concepts such as thresholds, trade-offs, desire to interact with advertising (e.g. in what ways), tolerance of rationing on a free download service, whether there are negotiable and non-negotiable service characteristics and features, and where the thresholds lie for those decision making heuristics.

7.4   Original empirical contributions

This thesis makes a number of original contributions to consumer behaviour literature.

It identifies the key characteristics that influence consumers' attitudes toward free, ad-supported music download services, and provides a rich contextual understanding of the perceived importance and value of such characteristics. The like versus like approach taken for this thesis (conceptually considering free legitimate services as a substitute to free illicit services, based on their characteristics) is unique in the body of literature, and this is the first piece of academic literature to take this approach or consider characteristics that make an ad-supported service attractive in itself. This is also the first piece of literature to

consider whether the legitimacy of a download service, combined with the characteristics it offers, has an influence on the choice between using an illicit or legitimate service when both are free.

Additional techniques that could be used to increase completion rates of online surveys are discussed, and this thesis adds to literature by commenting on attrition for short surveys (10 minutes to complete), which appears to be lacking to date.

This thesis provides insight into tolerance of online video pre-roll and how attitudes are affected by online video advertising as a result of irritation related to time delay. It considers the perceived cost of the delay relative to the perceived value of obtaining music for free. It found there is a difference between a suspicious advertisement affecting perceived trust of a service versus perceived safety of a website/service, and that perceived trustworthiness and perceived safety of a website/service as influenced by advertising are distinct concepts to consumers, with the attitude toward the site or service deteriorating as integrity is increasingly called into question.

This is the first piece of academic literature to mention the complexities of the subjectivity of perceived adequacy of a music service's catalogue, and its relationship to the perceived usefulness of a service.

Building on the concept of 'minor' criteria or attributes used for evaluation in the decision making process, this thesis introduces the concepts of primary and secondary utilitarian value for music services. It showed that some characteristics and features are seen as primary, and others are seen as secondary or minor.

This research has also taken the first step in building a small item bank for constructs related to the importance of recommendation features, attitudes toward online pre-roll advertising, openness to a legitimate free music download service that employs DRM, and attitudes toward advertising on a free music download service (see Appendix D).

In providing a validated conceptual model for consumer attitudes towards ad-supported music download services, this thesis is the first piece of literature to provide a holistic contextual understanding of consumers' interactions with and attitudes towards these services.

These original contributions are useful for academics who wish to conduct further research, and they are also useful for members of industry who can apply this thesis's academically grounded findings to develop consumer music services that are well-informed from a consumer behaviour perspective. This is vital for industry, given the hundreds of millions of dollars of market value that continue to be lost each year in recorded music sales, and the clear need to develop and effectively monetize additional offerings that appeal to consumers.

Though this thesis has been framed within the context of a free, ad-supported music download service, the model that has been developed could potentially be applied to similar online ad-supported business models, such as video or music streaming services.

7.5   Original contribution to theory

This thesis' original contribution to theory is centred on TAM, and its application to ad-supported online media content services.

TAM was designed in 1985 to predict end-user acceptance of information systems used in work environments, based on the evaluation of prototype systems via user acceptance testing. The model is couched in predictive behaviour theory, with its author, Davis (1985:24), saying that in TAM, "a potential user's overall attitude toward using a given system is hypothesized to be a major determinant of whether or not he actually uses it". True to Davis' (1985) original aim, TAM has been used in this thesis to enable better system design, by considering users' motivations to use a system, and how the characteristics, features, and capabilities of a system affect such motivations.

A key argument raised about TAM in Chapter 3 is that TAM is more of a tool or a guiding framework than a model, and that there may not in fact be a 'correct' version of it that can be applied generally to any circumstance. More often than not, researchers only use TAM's core constructs of perceived usefulness and perceived ease of use, repurposing them for their own ends. With the various versions of TAM that have been proposed over the past 25 years (by the authors themselves), and the myriad mutations the model has undergone as it has been repurposed by countless researchers, it indeed appears that there is no correct version of TAM that can be applied to situations/technologies generally, as will be discussed in subsequent paragraphs.

The perceived usefulness construct in TAM is conceptualized as relating to job performance (i.e. productivity). Productivity is the actual concept, but because the original model was contextualised to a work environment, it is described as "job performance". It would be useful to broaden the definition of this construct to denote 'productivity', so that it can more explicitly account for voluntary and non-organisational contexts.

In this thesis, the perceived usefulness, perceived ease of use, and attitude constructs of TAM were used, in a voluntary usage context. Intention and behaviour were removed because they could not be measured, and the influence of external variables was updated to include a direct influence on attitude toward the system in addition to their influence on perceived usefulness and ease of use (see Davis 1993).

This thesis has shown through its findings that TAM is still useful even when user acceptance testing (i.e. measuring actual system use) is not possible. However, when only considering attitudes toward the system/technology, without any form of more objective measurement available (i.e. automatically monitoring use or self-reporting actual use), the subjectivity of participants is a limitation. It is known that attitudes are subjective because they are based on an individual's beliefs, which might cause one to question the application of TAM in the absence of more objective measures. However, measures of attitude are still valid and important, and provide a useful starting point for expanding the testing of TAM in the area of this thesis (i.e. testing TAM's stability for a service of this nature, given the low-involvement nature of consumer decision making when choosing a free music service). Additionally, while attitudes are subjective, they tend to be more stable than intentions, because external factors can influence an individual's intent, as touched on in Chapter 3 (for example, perceived behavioural control in the Theory of Planned Behaviour).

With respect to the question of whether TAM is the right model to use for the research conducted for this thesis, the answer is yes. No other model was found that could accommodate the themes raised in the literature review, and utility and ease of use have been shown to be core to the concept of service quality for this type of service.

It is worth noting that TAM is not being extended in this thesis, so much as it is being mutated/repurposed for music/online media content services. As previously mentioned, it is the core aspects of perceived usefulness and ease of use that researchers parse out of the 'full' TAM, and the model gives specific license to add whatever "external variables" and characteristics the researcher deems relevant. While TAM's authors do not explicitly state that the external variable feature can be used to attach other models to TAM like modules or Lego blocks, it would be difficult to argue that the output of a different model could not be used as an "external variable" input for TAM. This could be a potentially powerful technique to apply, and the final model developed in this thesis opens the door for other researchers to do just that, offering the potential to create an even more powerful and detailed iteration for ad-supported music download services.

This thesis shows that TAM can be used to predict attitudes towards using a legitimate, free, ad-supported music download service. It explicitly identifies the key external variables that are relevant when applying TAM to this type of service, and is the first study to apply the model in this way. Hiramatsu et al.'s and Delikan's papers (2009, 2011) were the only pieces of literature found that attempted to apply TAM to online content services (video streaming and music streaming respectively) that displayed advertising. Hiramatsu et al.'s research predicting the use of online video services had serious methodological shortcomings, particularly, poorly defined and improperly applied constructs, and survey questions with little or no relation to the actual research being conducted, making an ambiguous contribution to literature, beyond the initial topic idea. While Delikan's paper includes data from a survey of 246 Spotify users, the paper applies Hiramatsu et al.'s model to the music streaming service, carrying through the same shortcomings originally present, specifically the lack of separation between constructs for advertising display and service charges. However, Delikan's research did find that perceived usefulness and attitude affect intention to use, and raised interesting questions about whether and what differences in attitude exist between free and premium (paid) users of a freemium service.

Not only has the model developed for this thesis been proven reliable and valid within the scope of the topic being investigated, but it appears reasonable to test as it stands on equivalent services for video downloading, and could be extended to any free, ad-supported media service after slight modifications. For example,

the model could be modified so that it could be tested for streaming content (e.g. where DRM may not be applicable). It would be interesting to note whether the characteristics for audio and video download services are the same, whether the characteristics for audio and video streaming services are the same, and what the key differences are that differentiate attitudes for streaming versus download services.

Key criticisms of TAM by other researchers in the literature review (Section 3.1.5.3) were that the model was too simple, too general, lacked context (an explanation of the 'why' behind a result and not just the result), and lacked in-depth explanations of the motivational and perceptual drivers of ease of usefulness and perceived ease of use. This thesis addressed these concerns by showing the key characteristics that were relevant, but also including an in-depth discussion of the perceptions and drivers behind each.

7.6   Limitations

While this research has clear strengths, is valid and useful, and makes clear contributions to theory and practice, there are some aspects of it that were limited by resource constraints (time and money). It was agreed that the pragmatic methodology for this thesis was acceptable given the constraints, and this section outlines what would have been handled differently, had there been no restrictions.

Chapter 4 discusses the limitations of the methods used, and how these were mitigated to ensure valid and reliable data was collected (i.e. multi-stage primary research, methodological triangulation, corroboratory literature). It has been shown that the demographic this thesis used is relevant and appropriate, but for the purposes of greater insight, it would have been ideal to also have had a larger sample based in each country, representing a wider age range and demographic (i.e. broader than middle class, urban, educated, 15 to 35 year olds), and to have the samples selected via probability or quota sampling, to reduce the potential for sample bias. In this way, an even broader data set could be gained, and more comparisons made with the general population in the markets being examined – for example, by age, employment status, education level, and socio-economic background.

With respect to TAM, the scope of this research was necessarily limited to attitudes. Ideally, the model would be extended to include intention and behaviour, but for reasons already discussed in this thesis (the complexity of using actual services to measure behaviour against), limiting the application of the model for the topic being studied was a necessary and prudent decision that ensured the integrity of the model. To illustrate one of the complications of extending the model, two of the three countries covered in this thesis had free legitimate ad-supported download services available, but only 2 of the research participants (American college students) were even aware such services existed. It would be difficult to obtain an adequate sample of users without partnering with free, ad-supported services, and using a sample of people who are all already using such services limits the scope of possible analysis, particularly when considering what might encourage users of illicit services to switch.

7.7   Ideas for further research

A validated conceptual model has been developed, providing a framework for future research. While the model illustrates basic relationships, this thesis provides a wealth of context around each of its constructs, and there are a number of interesting areas for further research.

Future research could examine each construct in more detail, deconstructing them to provide additional qualitative and quantitative granularity, and an even more precise understanding of how attitudes relate to each construct. For example, it would be useful to refine the conceptual meanings for some of the categories in more depth, such as trust, safety, and technical perceptions, and to explore the concept of ease of use in greater detail (particularly relevant for user experience and user interface designers). It would also be useful to explore in more detail the boundaries of tolerance for trust, reliability, and perceived safety.

While both the literature and the group interviews revealed consumers' clear disdain for intrusive, aesthetically poor, and suspicious-looking advertising, there was no quantifiable and little contextual information on consumers' thresholds related to various aspects of online advertising with respect to what point they are likely to be driven away from using a service because of the characteristics of the advertising displayed on it. Examples of characteristics include perceived safety when using a site or service, and the delays caused by advertising. The data set

could also be expanded by noting demographic significance not just for attitudes toward online advertising in general, but toward specific ad formats. With regard for the need for users to interact with advertising in order to maintain the value of a service's ad inventory, it would be useful for future research to investigate in what ways consumers tend to and/or prefer to interact with advertising on online content services.

Value, in terms of time cost and discounting related to forced advertising, is also an interesting area for future research. For example, if a consumer is receiving music for free, what is the maximum delay due to advertising that would be tolerated before the consumer decides the cost of using the free service outweighs the benefits? Would consumers consider watching short advertisements in exchange for discounted (not free) music from a paid service, or is the concept of forcing advertising on consumers an all-or-nothing proposition? How much longer would a consumer be willing to wait to receive legitimate free music (i.e. how much time does the object's value buy)?

Likewise, considering two music download services that are essentially considered to have equivalent key characteristics, it would be useful for future research to explore whether there are marginal features/characteristics that consumers use to differentiate between services, whether these marginal (secondary) characteristics influence decisions to use particular services, and if so, to what extent such features are important, and why they are valued/important. Additionally, it would be useful to consider whether there are negotiable and non-negotiable service characteristics/features in the eyes of consumers (i.e. what compensatory and non-compensatory decision making heuristics are used), and where such thresholds lie.

While norms were found to be irrelevant in this study, it could be useful for other researchers to explore norms specifically (as a standalone topic related to music downloading), as they are clearly a complex aspect, and understanding the psychology behind norms in this area could help companies to more effectively market their services. For example, a person could download music only through paid legitimate channels, but view a free legitimate ad-supported service as not adequately compensating an artist, and therefore abstain from using such a service to download music – an interesting perspective that lies outside the scope of this research.

The concept of ease of use in this study had an implicit and generic definition, which was adequate for this study's purpose. Future studies could attempt to further break down the ease of use construct to determine what specifically influences perceptions of ease of use for music download services, and accordingly, what effect each of those influences has (or does not have) on attitudes. Bagozzi (2007) specifically calls for this in TAM.

It would be useful to gain a deeper understanding of how consumers actually use music, as opposed to how they say they would ideally like to use it. Do current DRM restrictions or proprietary formats locked to specific hardware actually get in the way of attempted consumption and usage, or only users' utopian ideals? If there is goal interference, how is it manifested? While this thesis found that most consumers do not simply reject DRM on principle, it would be interesting to see where the threshold of rejection lies. This thesis is also the first piece of literature to explicitly state a significant finding relating gender to DRM aversion, raising another interesting, pragmatic area for further research. Understanding the nature of such a difference could help industry to better market its download services by enabling the construction of external ads that target potential male and female users based on relevant gender-applicable themes.

With respect to technological development, it would also be interesting to have a greater understanding of consumer attitudes and preferences related to audio formats and quality (i.e. codecs and bit rates), what formats downloaders prefer when they are given freedom of choice, and why.

It would be useful to further investigate attitudes toward the size of music catalogues, and to attempt to model a definition of an 'adequate' catalogue. Similarly, it would be interesting to understand whether and how the size of a catalogue relates to the number of services a consumer uses to obtain free music – how many different services do consumers typically use, which types, and why? Further, it would be interesting to explore whether genre preferences (e.g. hip hop, country) have a significant affect on attitudes and perceptions. In consideration of the economic viability of ad-supported services, it would be useful for further research to also consider consumer tolerance of song rationing on an ad-supported service.

Individuals have different needs and wants from a music service, the importance of which will vary from person to person. Soliman and Lapointe (2009:1) say that "Usefulness is a key construct in influencing use…[and] can be a function of a complex set of beliefs and evaluations". Indeed, researchers have suggested that even if a service is perceived as being useful, a person may still decide not to use it for various reasons (Bagozzi 2007, Soliman, Lapointe 2009:2). With regard to predicting actual usage of an ad-supported music download service, a more detailed understanding of antecedents to attitude is required, as previously mentioned in this thesis. It is possible that the model outlined in this thesis could be extended to incorporate constructs for intention and predicted behaviour, and that each of those aspects of the model might have their own antecedents that are not presently accounted for in TAM or the model developed in this thesis.

It would be interesting for further research to explore how music consumers interact with music on social networks (from discovering to listening to making recommendations) and when and why they decide to use social music services.

Lastly, it would be interesting to test the model against free, ad-supported music download services on mobile devices, given that the nature of mobile advertising and app/service use differs from that of the general online environment.

7.8   The final word

This thesis has provided much original insight into what affects attitudes toward a free, ad-supported music download service. By establishing a basic framework for investigation in this area, it paves the way for future researchers to delve into an investigation of more complex consumer evaluations and behaviours.

Researchers will benefit from a framework to move forward with, and industry will benefit from the rich contextual information provided as part of this framework, which they can use to iteratively improve their service offerings to the marketplace.

The recorded music industry faces a significant on-going challenge in its attempt to monetize free consumption behaviour and keep pace with changing consumer behaviour. All is not necessarily lost in a business model if a particular iteration of it does not prove as fruitful as expected. Riches do not often come easily or from luck. As an analogy, skeptics of ad-supported models should keep in mind that the jet engine did not take a year to develop. It took many decades of trial and

error, and iterative improvements from the turn of the 20th century (there are films of the clumsy first propeller plane models to prove it). This is also true of technology in the music industry.

Early in the history of the recorded music business, phonographs were steadfastly marketed as business machines, even when this approach met with increasingly little success, and when it was evident based on consumer behaviour that the machines were much more economically valuable as tools for consumer entertainment (Dowd 2002). The modern recorded music business has faced similar issues, with industry attempting to market products and services to consumers that have not always been well-aligned to their desires and behaviour – yet hoping that the next new innovation will be a cure-all.

Says Dowd:

"Inventions do not appear suddenly at some point in time, despite our preferences for a historical shorthand that assigns to each a convenient date. There is a long series of small improvements which finally culminates in a technology that becomes economically dominant…The transformation of the recording industry, then, did not arise as powerful firms easily and adroitly embraced new technology. Instead, transformation arose as producing firms *collectively* reassessed the nature of *old* and *new* technology… Thus, the 'musical box' [record player] that came to dominate the recording industry in the subsequent century was not the result of a natural and inevitable commodification process. Instead, it resulted from the distinct impositions of structural power that momentarily shaped the collective sense-making of [economic] actors" (Dowd 2002:132).

The fate of the record player was influenced by consumers exerting their power in the value/supply chain, causing industry to consider – for at least a moment – consumers' actual desires. The fate of the commercial recorded music industry is being influenced in the same way, and the ever-present, ever-important challenge of meeting consumer needs and desires still remains.

Appendix A: Group Interview Topic Guide

This appendix contains the semi-structured topic guide for group interviews conducted in the primary research. Participants were not aware of the questions in advance, and were not shown them during the session. Rather than asking every question verbatim, the guide was also used as a checklist to make sure particular areas were addressed in each group.

Part One: Music Search, Discovery, and Usage

1. What kind of music do you look for online (e.g. Top 40, indie, bootlegs, live recordings, songs you can't buy, songs you hear on the radio)?

2. How do you discover new music?

3. How do you search for music online?

4. Do you usually know what you're looking for, or browse, or both?

5. How often do you sample music before downloading (all the time, sometimes, rarely)?

6. Do you burn songs to CD?

7. Do you know what DRM (digital rights management) is? If so, what's your understanding of it?

8. Do you pay attention to recommendations from a music service? Why/Why not? If so, how useful/valuable are such recommendations to you? Why? What about your friends? Do you like to know what music your friends are listening to? Why/Why not? Do you ever search for music that your friends have recommended? What other ways do you get recommendations for new content/music to listen to?

9. Do you use MySpace, Facebook, or other social networks? If so, do you use them to find, share, or talk about music or music-related events? Do you share music on social networks or use social networks for music discovery or getting information on music or bands?

10. Do you leave comments on music sites?

11. Is feeling part of a like-minded music community important to you (fan forums/clubs, music genres, chat rooms, recommendations, fan groups, etc.)? Why/Why not? Is there anything online services do/could do to create a sense of community that would be of use to you?

12. What do you do with music that you download to your computer (where do you listen to it – do you transfer it to another device/other devices)?

13. How many music players do you have? Are any of them iPods? Do you listen to music on your cell phone? Do you listen to music on your games console (PSP, PS3, Xbox, etc.)?

Part Two: Service Experience

1. When you use a music download service, what makes it a good experience for you (e.g. features, ease of use, content)? What are examples of good streaming or download services? (Give reasons).

2. Have you ever been let down or had a bad experience with a music streaming or download service? If so, why/what were the circumstances?

3. If your first attempt to download a song from a free service fails or you don't get the song you thought you were going to get, how many times to you try again to get what you want? If you can't find what you want, do you abandon the search for the song, or use a different service or means of getting the song?

4. Do you ever make use of features on services to look at artist information (e.g. bios, upcoming shows), reviews, merchandise, etc.?

5. Would you be willing to register for a service in order to receive access to more features or personalization? If so, what information would you be willing to give, and what features would you expect in return? Would you be willing to store your credit card details online with the service for quick purchasing? If so, under what conditions? If not, why not?

6. Would you accept 'hidden' types of tracking in a downloaded song that allowed content providers to track who was listening to the music (e.g. watermarking) in exchange for free music? Why/Why not?

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7. How important is it for you to know what software you're about to install will do to your computer, or what a service will do with your information or computer settings? Why/Why not? Do you ever read user agreements? Why/Why not?

Part Three: Ideal Service

1. What are your top three likes about paid or unpaid services you use/have used? What are your top three dislikes?

2. Describe your ideal download service. What does it look like, what does it offer, what features and services does it have? Would it be web-based (go to a website) or software-based (download a player)?

3. How long are you wiling to wait for a song/album to download?

4. What file formats and quality would the files be on your ideal service?

5. What kind of extras would you like/want/expect?

6. What kind of metadata would you like/want/expect?

7. What do you want the user interface to look like?

8. What kind of music do you want the service to offer?

9. What are the three most important things that this service should offer you?

Part Four: Music Downloading and Norms

1. How often do you download music? What's your average # of paid/unpaid song downloads per week or per month?

2. If you file share, why do you file share? What kinds of file sharing services do you use (e.g. P2P, torrents, IM, email)? Do you upload songs or download or both? Do you have any fears about illicitly downloading? If so, what are they? If not, why not?

3. Do (most of) your friends download music? Illicitly or legitimately? What do you think of their downloading habits? Why?

4. How do you feel about your own downloading habits (Good? Bad? Neutral?)? How do your friends feel about your downloading habits? Do you care what they think? Why/ Why not? If they asked you to change your habits, would you do so? Why/Why not?

Part Five: Online Advertising

1. What's your opinion of online advertising in general? Is it good/bad? Do you like it/hate it?

2. Are there any advertisements or advertising formats that annoy you? If so, what kinds/which ones? What annoys you the most about them? Have they ever prevented you from what you were trying to do online? What kind of ads do you hate or find boring or ignore?

3. What do you do when you encounter an advertisement that annoys you (e.g. leave the site or service, navigate to a different page, ignore the ad, try to get the ad to go away)?

4. What's more annoying: too many ads or irrelevant ads?

5. How much advertising is too much?

6. Are there any ads or ad formats you do like? If so which ones/what kinds? Are you more likely to click on ads that look entertaining (e.g. quizzes or polls or games or asking for feedback)? What if they looked legitimate?

7. Where's the best place to put ads if you have to have them in a music service?

Part Six: Ad-Supported Services

1. Do you know what an ad-supported online service is? Are you aware of ad-supported services for listening to or downloading music? If so which ones? What other ad-supported services are you aware of (e.g. Google, YouTube)?

2. Have you used any ad-supported services for listening to or downloading music?

3. Do you think free music in exchange for watching advertising is a fair exchange? Why/Why not/what would the conditions be? Would you be willing to listen to or watch advertising before downloading a song? If so, what would be a reasonable/maximum length of time you'd be willing to wait?

4. If you had to see ads, what kind of ads would you prefer to see in terms of format, information, products advertised, entertainment value, or length? Where is the best place to have ads in an ad-supported music download (including in audio)? Would you be willing to hear an advertisement at the start of a free song, e.g. for the first few plays? Why/Why not? Would it help if the ad was voiced by the artist, or a PSA (public service advertisement)?

   Part Seven: Conclusion

1. What do you think of the idea of a free legitimate ad-supported music download service? Is it something you would be interested in trying? Why/Why not? If you're not interested, is there anything that could convince you to switch from the service(s) you currently use, or add it to the services that you use?

Appendix B: Online Survey Questions

This appendix contains a copy of the online survey questions. They have been included here in a format optimized for printing (multiple questions per page).

Survey on Online Music Services

This survey on online music services is part of my Doctorate of Business Administration degree that I am completing at The Robert Gordon University in Scotland. It is independent research for my degree, and not affiliated with any company.

The survey takes less than 10 minutes to complete. Your answers are anonymous and the survey cannot identify you.

You must be 15 years old or older to participate. If you are under 18, you must have the permission of your parent or legal guardian to complete this survey.

Thanks for participating!

Ainslie Harris
(for more information or to request a summary of the results, please email me at dbasurvey@ainslieharris.com)

1. How old are you?

- ○ 15-19 years old
- ○ 20-24 years old
- ○ 25-29 years old
- ○ 30-34 years old
- ○ 35-49 years old
- ○ 50+ years old

2. In what region do you live/spend most of your time? (Choose one)

- ○ Canada
- ○ USA
- ○ UK
- ○ Europe (outside UK)
- ○ Other

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3. What is your gender?

○ Male

○ Female

4. Which of the following most accurately describes your level of education? (Choose one)

○ Currently in high school/secondary school

○ Graduated from high school/secondary school

○ Currently in college/university, or attended but did not graduate

○ Graduated from college/university (first degree or higher)

○ None of the above

5. Are you currently employed?

○ Full-time paid employment

○ Part-time paid employment

○ Other/not currently employed

6. Which of the following do you do at least once a year? (Choose one)

○ Download music

○ Stream music

○ Download and stream music

○ None of the above

For the questions that follow:

A music download service is anything that you download music from (e.g. torrents, iTunes, Amazon, Limewire, blogs, websites, FTP, etc.)

Survey on Online Music Services

A "legitimate" service is one that has the approval of record labels, and compensates artists for their music (e.g. Guvera, Puretracks, iTunes, Amazon, etc.). An "unsanctioned" service is one that does not have the approval of record labels (e.g. torrents, file sharing services).

7. How often do you make use of recommendation features on music download or streaming services to find new music (e.g. "things you might like", "just for you")?

	Never	Rarely	Sometimes	Often	Always	Feature Not Available
Choose one	○	○	○	○	○	○

8. How important is it to you for music download services to be able to recommend songs for you to listen to?

	Not At All Important	Not Important	No Opinion	Important	Very Important
Choose one	○	○	○	○	○

9. I would prefer to use music download services that could recommend new music for me to listen to.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

10. When I'm downloading music, it's ok to show me a short online advertisement before my song starts downloading, if I'm getting the song for free.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

11. Having to watch 5-10 seconds of advertising on a legitimate music download service before each song I want starts downloading is too long for me to wait for a free song.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

12. A legitimate free music download service is only useful to me if I can download songs without having to watch any advertising first.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

13. Having to watch 5-10 seconds of advertising on a legitimate music download service before each song I want starts downloading is ok if I am getting the song for free.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

14. I would use a legitimate free music download service that puts copy protection on songs, as long as it allowed me to put the songs on all my computers and portable music devices.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

15. I make an effort to avoid using music download services that don't let me transfer my downloaded songs to any brand of portable music device or computer.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

16. I would not use a legitimate free music download service that puts any copy protection on songs, even if it allowed me to put the songs on all my computers and portable music devices.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

17. Legitimate music download services have most of the music I would want to download (regardless of whether I want to pay for it).

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

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18. Legitimate music download services often don't carry the music that I want to download (regardless of whether I want to pay for it).

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

19. How often do you use unsanctioned file sharing services (e.g. torrents, Limewire, etc.) or rip music from video streams (e.g. YouTube) to get music you want but can't find on legitimate music download services?

	Never	Rarely	Occasionally	Often	Almost All The Time
Choose one	○	○	○	○	○

20. Even if it didn't have all of the songs I want, a legitimate free music download service would still be useful to me if it had some of the songs.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

21. I don't care about a music download service being really easy to use, if I am getting free songs from it.

	Strongly Disagree	Disagree	Not Sure	Agree	Strongly Agree
Choose one	○	○	○	○	○

Survey on Online Music Services

22. A music download service with a large catalogue of free music (e.g. equivalent to iTunes) would only be useful to me if it was easy to use.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

23. I dislike all online advertising.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

24. Advertising on a free music download service is okay, as long as it doesn't get in my way.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

25. Having to see advertising on a music download service in exchange for getting free music is a fair deal.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

26. I would be suspicious of a legitimate free music download service that asked me to provide my full address, mobile phone number, or full date of birth as part of registration.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

27. When I'm on a website that I think has a trustworthy reputation, if I see advertising that looks suspicious, I feel like I can't trust the website as much.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

28. Only untrustworthy websites show advertising that looks suspicious.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

29. Both trustworthy and untrustworthy websites show suspicious advertising, so the quality of advertising on a website doesn't affect how much I trust a website's safety.

	Strongly Disagree	Disagree	No Opinion	Agree	Strongly Agree
Choose one	○	○	○	○	○

30. On average, how many songs do you download that you pay for?

(An album counts as 10 songs)

- ○ None
- ○ 1-5 paid songs a month
- ○ 6-25 paid songs a month
- ○ 26-50 paid songs a month
- ○ 50-99 paid songs a month
- ○ 100-499 paid songs a month
- ○ 500+ paid songs a month

31. On average, how many songs do you download that you DO NOT pay for
(e.g. from torrents, Limewire, friends, FTP sites, etc.)?

(An album counts as 10 songs. All survey answers are anonymous.)

- ○ None
- ○ 1-5 unpaid songs a month
- ○ 6-25 unpaid songs a month
- ○ 26-50 unpaid songs a month
- ○ 50-99 unpaid songs a month
- ○ 100-499 unpaid songs a month
- ○ 500+ unpaid songs a month

32. How many laptops, PCs, or portable music devices do you currently own
that you listen to downloaded music on?

- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ more than 5

33. If you were evaluating a music download service that gives you free music to keep forever, in what order of importance would you rate the following characteristics? (One choice per column)

	Most Important (1)	2	3	4	Least Important (5)
Large catalogue of music	○	○	○	○	○
Service can recommend music to me	○	○	○	○	○
Not forced to watch or listen to ads	○	○	○	○	○
Freedom to transfer songs to any device	○	○	○	○	○
Easy to navigate	○	○	○	○	○

34. Last Question!

Do you consider yourself to be a member of the music business because of your work or area of academic study (e.g. sound engineer, music journalist, lecturer, band manager, studying music business, studying audio engineering, etc.)?

○ Yes

○ No

○ Not Sure

Thank you for participating in this survey about online music download services. I appreciate you taking the time to help me with my DBA research!

If you would like to find out more about my research, or would like a summary of my research results when they are released, you can email me at dbasurvey@ainslieharris.com (this survey is anonymous so your email address cannot be associated with your results in any way).

Ainslie

Appendix C: Item Bank

Q7, Q8, and Q9 (listed in Table 41) were statistically reliable measurements of the importance of recommendation features on a music download service. Cronbach's Alpha (using 5-point scale data) = 0.828, with all pairwise correlations greater than 0.3.

Question	Answer Choices
Q7: How often do you make use of recommendation features on music download or streaming services to find new music (e.g. "things you might like", "just for you")?	Never (1) Rarely (2) Sometimes (3) Often (4) Always (5) Feature Not Available (0) "Feature Not Available" is counted the same as "Never", but used to distinguish between reasons for not using the feature in analysis.
Q8: How important is it to you for music download services to be able to recommend songs for you to listen to?	Not At All Important (1) Not Important (2) No Opinion (3) Important (4) Very Important (5)
Q9: I would prefer to use music download services that could recommend new music for me to listen to.	Strongly Disagree (1) Disagree (2) No Opinion (3) Agree (4) Strongly Agree (5)

Table 41: Statistically reliable items for the measurement of the importance of recommendation features on a music download service

Q10, Q11, Q12, and Q13 (listed in Table 42) were statistically reliable measurements of attitudes toward online pre-roll advertising (on a legitimate free music download service) with respect to time. Cronbach's Alpha (using 5-point scale data) = 0.861 with all pairwise correlations greater than 0.3.

Question	Answer Choices
Q10: When I'm downloading music, it's ok to show me a short online advertisement before my song starts downloading, if I'm getting the song for free	Strongly Disagree (1) Disagree (2) No Opinion (3) Agree (4) Strongly Agree (5)
Q11: Having to watch 5-10 seconds of advertising on a legitimate music download service before each song I want starts downloading is too long for me to wait for a free song.	Strongly Disagree (5) Disagree (4) No Opinion (3) Agree (2) Strongly Agree (1)
Q12: A legitimate free music download service is only useful to me if I can download songs without having to watch any advertising first.	Strongly Disagree (5) Disagree (4) No Opinion (3) Agree (2) Strongly Agree (1)
Q13: Having to watch 5-10 seconds of advertising on a legitimate music download service before each song I want starts downloading is ok if I am getting the song for free.	Strongly Disagree (1) Disagree (2) No Opinion (3) Agree (4) Strongly Agree (5)

Table 42: Statistically reliable items for the measurement of attitudes toward online pre-roll advertising (on a legitimate free music download service) with respect to time

Q14 and Q16 (listed in Table 43) were statistically reliable measurements of openness to a legitimate free music download service that employs DRM. Cronbach's Alpha (using 5-point scale data) = 0.759 with all pairwise correlations greater than 0.3.

Question	Answer Choices
Q14: I would use a legitimate free music download service that puts copy protection on songs, as long as it allowed me to put the songs on all my computers and portable music devices.	Strongly Disagree (1) Disagree (2) No Opinion (3) Agree (4) Strongly Agree (5)
Q16: I would not use a legitimate free music download service that puts any copy protection on songs, even if it allowed me to put the songs on all my computers and portable music devices.	Strongly Disagree (5) Disagree (4) No Opinion (3) Agree (2) Strongly Agree (1)

Table 43: Statistically reliable measurements of openness to a legitimate free music download service that employs DRM

Q24 and Q25 (listed in Table 44) were statistically reliable measurements of attitudes toward advertising on a free music download service. Cronbach's Alpha (using 5-point scale data) = 0.714 with all pairwise correlations greater than 0.3.

Question	Answer Choices
Q24: Advertising on a free music download service is okay, as long as it doesn't get in my way.	Strongly Disagree (1) Disagree (2) No Opinion (3) Agree (4) Strongly Agree (5)
Q25: Having to see advertising on a music download service in exchange for getting free music is a fair deal.	Strongly Disagree (1) Disagree (2) No Opinion (3) Agree (4) Strongly Agree (5)

Table 44: Statistically reliable measurements of attitudes toward advertising on a free music download service

Glossary

This glossary contextualises some common industry terms and phrases used in this thesis. The entries are not intended to be academic definitions of phrases (and as such are not defined elsewhere in this document), rather they are intended to explain certain terms in such a way that the reader will understand their contextual use in this document.

Ad-supported service: A service that is free to consumers, and generates a majority of its income from advertising that is shown on the service. Examples of such services include YouTube, Google, Spotify, and Pandora. This thesis focuses on services that have licensing deals with major labels (i.e. the services are mainstream or have mainstream potential), and considers video pre-roll advertising in particular.

Beta: In this thesis, beta refers to a trial period of an online service, before its full or official launch. A private beta is an invitation-only trial of a service, and a limited beta means a limited number of users (e.g. by region, or first come first served until a quota is reached).

BPI: British Phonographic Industry, a trade association for the recorded music industry in the UK.

CIMA: The Canadian Independent Music Association (formerly known as the Canadian Independent Record Production Association).

CIRPA: The Canadian Independent Record Production Association (known as the Canadian Independent Music Association, since 2009).

Compressed (compression of a music file): This refers to the reduction in size of a digital music file by discarding information in the file that consumers cannot hear, or that is minimally perceptible.

Consumer/User: These terms are used interchangeably in this thesis.

CRIA: Canadian Recording Industry Association (rebranded in 2011 as Music Canada), a trade association for the recorded music industry in Canada.

DRM or digital rights management: Often confused with proprietary file formats, DRM is concerned with managing rights to digital content, typically by restricting access or usage. Examples of restrictions include limiting the ability to transfer a song to different devices or computers, burn it to CD, or even the amount of time the user can possess the file before the ability to play it 'expires'. Proprietary formats do not necessarily have DRM. For example, a person can record an audio file on their computer in the .WMA (Windows Media) proprietary format without DRM and use the file as they like, but a company may choose to provide consumers with a .WMA file that includes Microsoft's proprietary DRM, and restricts what the consumer can do with it. The MP3 format does not support DRM, so users can do what they please with MP3 files. DRM is not an issue on illicit download services, which is part of the appeal of such services.

File sharing: File sharing technically means sharing files – making files available for others to download, not just downloading songs without sharing. Songs are typically made available by uploading them to a server, or allowing other users to see specified folders on one's own computer (see 'P2P'). The term is also used in literature to represent illicit downloading.

MP3: A compressed audio file format, with audio quality measured in Kilobits (Kb or kb) per second. The higher the number of Kilobits per second, the higher the quality of the audio.

IFPI: International Federation of the Phonographic Industry, a global trade association for the recorded music industry.

Illicit downloading: The practice of downloading files using means or channels that are not sanctioned by the copyright holder(s) of the music, and as a result do not compensate the rights holders of the music. The term 'illicit' has been used throughout this thesis rather than 'illegal' because it is the act of uploading files that is technically illegal, and even then, that is not an illegal act in many countries.

Illicit download service: A service or download channel that is not sanctioned by the copyright holder(s) of the music, and as a result does not compensate music rights holders.

Label: See 'record company'.

Legitimate download service: A service or download channel that is sanctioned by the copyright holder(s) of the music, and compensates music rights holders.

P2P or peer-to-peer: A type of file sharing network where the computing tasks are shared between users' machines on the network, in order to reduce the load on any one machine. It allows for one song to be sourced from a number of users on the network, avoiding the use of a central content server. P2P is a common form of illicit downloading. Examples of P2P software used for music downloading include LimeWire, Kazaa, and Gnutella, and various torrent applications. While P2P is known for enabling illicit downloading, it is also used for the legitimate distribution of files.

Piracy: This term is used interchangeably with illicit downloading in this thesis. In literature, it is also used to refer to file sharing and P2P.

Pre/Post-roll: In this thesis, video pre/post-roll refers to a video advertisement shown before/after downloading.

Proprietary file format: A format that is developed by a company and only works with their products. For example, Sony's proprietary ATRAC codec, designed to work on only Sony products.

Record company/recording company: In this thesis, label, record company, and recording company refer to entities that own rights to pre-recorded music and are responsible for the music's commercial distribution.

RIAA: Recording Industry Association of America, a trade association for the recorded music industry in the USA.

Rich media (advertising): This refers to advertising that is dynamic (and sometimes interactive), such as animated banners, or video.

Rip: Ripping a CD means transferring the songs on a CD to a computer. This often involves some form of compression, for example, converting the large WAV files on a CD to much smaller MP3 files for transfer to a portable music device.

Torrent: A torrent is a type of P2P protocol, typically used for transferring large files or bundles of files (e.g. films, large music compilations instead of single

songs). While torrents are often used to download illicitly, they are also used for the legitimate distribution of content.

WAV: An uncompressed audio file format, typically referred to as 'CD quality'.

WMA: A proprietary compressed audio file format called Windows Media Audio.

Website/Service: These terms are used interchangeably, to include a music download service being offered via a website, or via a software application.

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