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Great Expectations or small country living?

Enabling small rural creative businesses with ICT

We are interested in the role that broadband Internet plays in rural small creative businesses, reflecting on the interplay of technology within what Scott (2014) calls the creative era. Rural creative industries can help overcome social and economic inequalities and offer future economic growth (Banks, 2007). Consequently, we want to know how the practices of rurally situated creative small businesses are shaped by technology. Rurality offers an interesting dimension because these businesses face the problems of scattered population, distance from customers and suppliers and cost and delays in communication (Anderson, 2000; Galloway et al, 2011). ICT is posited as one solution to these problems because of its ability to transcend space electronically (Warren and Evitt, 2014). Furthermore, creative industries are thought to offer great opportunities for rural development (Ross, 2008). They are lauded for adding value as part of the "cultural turn" underpinning the knowledge economy. Camelo-Ordaz et al (2012) explain that creative industry has acquired a special significance as intangible and symbolic goods become increasingly important. Less physically fixed in space than, for example, manufacturing, modern, even postmodern, cultural productions are held up as the future (Harvey, 1989). Wilson (2001) calls this the 'post-productivist countryside'. This is a countryside whose economic foundation has shifted, at least in part, from agricultural production to consumption, recreation and re-creation (Anderson and McAuley, 1999). Creative industries

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may draw value from the aesthetic rural context, thereby offering a novel compound of rural production *and* consumption. The tantalising promise is that ICT proffers a new rural geography; the creative countryside is one that is culturally inspired and entrepreneurially driven, where space matters less and place matters more. Accordingly, our questions are about rural small business concerns set in the promising context of a new and growing sector.

Our research problem is whether the "digital promise" for creative small firms has been delivered to rural places. Can the rural become a creative milieu through ICT? Malecki (2003) described the *rural penalty* as the problems associated with low density of population and the distance to markets, information, labour and other resources. However, compared to traditional industries, creative industries are relatively footloose and less tied to the physical requirements of an urban location. This is because their stock is often artistic human capital and their practice is the application of knowledge. Moreover, the appeal of the countryside for quality of life indicates that some creative workers will be attracted to rural places (Florida, 2002). Furthermore, telecommunications technologies can reduce problems of distance and isolation (Irvine and Anderson, 2008)*.* Good broadband facilitates high-speed data transmission, thus reducing the challenge of distance. ICT may ease the constraints of economic and geographic remoteness (Renkow, 2011), especially for the non-material and symbolic productions of the creative industries.

This paper makes several contributions. First, we examine how well, and in what ways, the rural technological promise is fulfilled. This addresses broader theoretical issues about the benefits and roles that technology plays in overcoming the rural disadvantage. Conceptually,

we articulate the social and economic dynamics of the rural-urban. Perhaps more importantly, we consider the roles of places and people in creativity and creative industries. We also contribute to the current literature by examining how rural small firms deploy technology.

Problematising "the creative promise": a critical overview

The problem is both conceptually and practically interesting. From a conceptual perspective, the very idea of revolutionary change into a new type of creative economy is under debate. In the rural context, the argument intensifies when issues about physical and social remoteness are weighed against the aesthetic appeal of the countryside. In practical terms, flourishing new creative businesses might replace lost agricultural jobs. However, very different views on these issues have emerged in the literature. In the following section, we consider the contrary perspectives in detail. The "creative economy" may overcome inequalities (Banks 2007), but several issues arise within this digital prospect. We may, for example, question whether creatives can, and will, generate growth; how will the promise be delivered, and is connectivity technically feasible? We also question whether the quintessentially small rural firm is willing or able to take up the promise (Bell and Jayne, 2010). Moreover, small rural creatives cover a broad, even eclectic, spectrum of activities (Thomas et al, 2013). Finally, is distance, as spatial proximity, really the root of the problem (Boschma 2005)?

Naylor (2007) claims that creative industries are at the leading edge of the information age, possibly even harbingers of the future. Others challenge this optimism (Flew and Cunningham, 2010), disputing the information age discourse (Garnham, 2005). Indeed,

Clifton (2008) questions the very concept of a "new economy" for delivering prosperity. Some disagree with the credibility of the ICT promise. Kenny and Kenny (2011) find that the evidence for broadband bringing economic growth is patchy. Wilson et al (2009) suggest there is little empirical evidence that the proposed benefits are ever realised.

Moreover, it is unclear whether ICT can deliver the connectivity necessary for creative production (Galloway, 2007). We know, for example, that some types of knowledge can be electronically transferred very successfully (Hardwick et al, 2013) but that tacit knowledge *sharing* may be more problematic (Harbi et al, 2011). Trust plays a critical role in collaboration (Sanzo et al, 2012; Welter, 2012; Geneste and Galvin, 2014) but is also less easily developed online (Townsend et al, 2014). Apparently, connectivity is thus both a technical and a social issue. Nonetheless, Jones et al (2014) propose that ICT may build closer relationships. Entrepreneurship has, perhaps contentiously, been described as the ability to connect and the ability to use these connections. Entrepreneurs (Anderson et al, 2012; 962) "connect; sometimes technologies, sometimes ideas, sometimes places and products…..Entrepreneurship, in this view is boundary spanning, and connecting, a phenomenon of relatedness." Technological innovation often involves combining knowledge, but artistic innovation is often about bringing together ideas or even images (Koestler, 1964). Synergy and creativity are realised by connecting. Nevertheless, a characteristic of rural business is isolation, creating a type of insulation. Successfully connecting with ideas, people, knowledge and places may thus play a significant role in rural creative practices.

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The Internet offers connections. UK-business.net (2004) lists the beneficial capability of good broadband: emails with large file attachments; web pages with pictures, complex graphics or animations; video (conferencing), music or sound; and the rapid exchange of files. However, the technical capabilities of rural ICT vary considerably (Townsend et al, 2013), and some advanced capabilities may not be available. Pociask (2005) argued that the deployment of rural ICT services lags urban deployment (Galloway and Mochrie, 2005). Hence, the uneven provision of broadband might actually increase an urban-rural creative divide.

Rural firms already face specific problems (Siemens, 2010) associated with distance and the availability of infrastructure (Diochon, 2003) and thus suffer from relative isolation. However, technology can offer solutions (Nyseth and Aarsæther, 2005). Premkumar and Roberts (1999) claim that with broadband, rural businesses can compete with their urban counterparts. Indeed, Wilson et al (2009) assert that broadband is crucial in a knowledge-based economy. Small firms currently play a vital role in the rural economy, providing essential goods, local services and rural jobs (Anderson et al, 2010). Nonetheless, rural businesses tend to be small (Smallbone et al, 2003; Cosh and Hughes, 1998), with a high proportion of one-person businesses (Lowe and Talbot, 2000). This tendency may be caused by resource constraints (Anderson and Ullah, 2014), the sparse rural environment (Glaeser et al, 2010) or lifestyle business choices (Herslund, 2012). Thus, what small firms will do can be limited by size or by choice.

Moreover, the term "creative industry" has come to encompass a very broad range of activities (DCMS, 2007); the points above overlook the heterogeneity of small creative

businesses. Henry (2007) describes an extraordinary range of creative industries: arts and crafts, designer fashion, film, theatre and the performing arts, advertising, architecture and design, publishing, broadcast media and recorded music, software development, computer services, digital media, communications and the heritage sector. Thus, "creative" is a very broad spectrum with differing requirements. The label captures the extent of aesthetic goods and services with a high proportion of symbolic attributes of value (Lash and Urry, 1994). However, the range of firms described as creative reduces the analytical usefulness of "creative" as a category. We note nonetheless the magnitude of the claims made about these creative businesses.

Expectations and the creative promise

The "creative economy" anticipates a great deal; therefore, much is expected of these small firms. Garnham (2005) deems the knowledge economy to be a new stage in the development of capitalism on a par with the industrial revolution. Gibson (2010:1) declares creativity "the salient feature of contemporary post-industrial capitalism, fuelling innovation and investment". Harvey et al (2012) propose that culture substitutes for lost factories, with profound impact on rural areas; culture is becoming a 'rural regeneration tool' (Bell and Jayne, 2010). In reality, however, Bell and Jayne (2010) found that in the UK only 56 per cent of respondents to their creative survey wanted their businesses to grow and only 17 per cent wanted to expand their workforces. Herslund's (2012) Danish study reported similar patterns of small size and lack of growth aspirations. Moreover, Henry (2007) confirms that "creatives" are three times more likely to be self-employed. Although there is great potential in creative industries, evidence of achievement remains limited.

Creative people and creative places

There are stimulating debates about the role of places and the relationship between people and places in creative industries. These debates include asking whether the countryside is a good place for being creative. Drake (2003), for example, notes that place acts as a source of ideas, yet he also notes that creativity is a product of place-based interactions, often as creative clusters. Certainly, Florida's 'creative class' thesis is metrocentric, largely eschewing rural regions (Sorensen, 2009). Notwithstanding, Argent and Tonts (2013) and Herslund (2012) argue that high-amenity rural areas attract 'creative' workers whose presence stimulates local development. As McGranahan and Wojan (2007) suggest, some creative workers choose a rural quality of life, and Malecki (2003) mentions creative migration for rural lifestyle reasons.

The location of creative workers and the operation of creative businesses

The knowledge economy is predominantly urban (Clifton, 2008), reflecting a specialisation in higher-skilled conception tasks (Wojan, 2000). Creative industries are disproportionately concentrated in London (Naylor, 2007), forming a critical mass. However, there is also evidence of attraction to rural places (Wojan et al, 2007) because of their aesthetic appeal (Florida, 2002). Indeed, Halstead (2001) claimed that the location choice of knowledge workers is dictated only by access to communications technology. This is because they need to connect to the market and make creative contacts (Richardson and Gillespie, 2000). Landy (2000:133) described the social context for these interactions as a

creative milieu, a place where 'face-to-face interaction creates new ideas, artefacts, products, services.'

However, the importance of geographic proximity has challenged. Boschma (2005) discusses innovation (which is akin to creativity, i.e., "aesthetic innovation", Drake, 2003), noting that spatial proximity alone is not a necessary or sufficient condition for innovation. He describes 5 dimensions of proximity, of which cognitive, social and organisational are relevant for our enquiry. We argue that the creative milieu is a *relational* activity space; characterised by social interaction, it is a context for intersecting and interacting relationships (DeFillippi et al, 2007). Hence, both cognitive and social dimensions interact in the creative milieu. However, geographic proximity may foster this interaction because short distances bring people closer to form a critical mass, whereas long distances set them apart. Thus, a spatial clustering may well promote a social cluster because the social and spatial relate. However, Boschma also describes how organisational proximity is both the mechanism and the enabler for communications. This idea resonates with seeing broadband as an organising artefact, so that we may judge how well it offers communication and what it enables.

Hotho and Champion (2011) identify collaboration as a critical element in creative and knowledge work. Networked flatter structures, self-organising teams and projects, devolved decision making and democratic lines of communication are defining features (Bilton, 2007; Simon, 2006) emphasising the collaborative, connected nature of creative work. Greenman (2012) describes how creative industries engage in occupational boundary work that requires access to and the use of reflexive knowledge. Creative industries are vertically disintegrated and rely on dense inter-firm transactions. This is why the interdependent

relationships of creative firms encourage spatial agglomeration, often in large cities (Scott, 1999). Indeed, Leadbeater and Oakley (1999, p. 14) argue that cultural entrepreneurs exemplify the economics of proximity.

By interpreting the competing explanatory power in these studies, we untangle two different arguments. The first is the creative relationship between place and person, and the second is about the relationships between *people* in those places. The first argument is probably geographic, whereas the second is largely socio-economic. Indeed, clustering and agglomerations are *spatial* social and economic relationships. However, this neglects the importance of the individual creatively reacting to some quality of place. It emphasises the idea of a milieu as a creative arena but pays little heed to creative industry as 'activities which have their *origin in individual* creativity, skill and talent' (Jeffcut and Pratt, 2002). We propose that places, especially rural places, offer a source for *producing creativity*, and we reconcile this with *the application of creativity* in a more concentrated urban milieu. One can be alone in a rural place and be creative, but using this creativity (industry) seems to require connections to others.

Our research problem is to establish how well broadband enables creative rural businesses to make these creative connections. To recap, we are specifically interested in how rural creative small businesses employ broadband. More generally, we want to know whether the virtual can replicate a physical creative milieu. Conceptually, we try to understand creative interactions between people and places.

Methods

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Seeking detailed accounts of processes and practices, we took a qualitative approach (Smith et al, 2013). Our objective was to understand what goes on, rather than a quantitative "explaining" by correlating variables (Anderson, 2015). Our sample was rural business owners located in northern Scotland. To capture differences and similarities, we sought diversity in the types of creative businesses (Henry, 2007). We interviewed 10 respondents (Table 1) between 2012 and 2014 and studied websites and other material to produce short case studies. We analysed the resulting data by the constant comparative method (Jack, 2005). This inductive technique requires an iterative "toing and froing" within the data and between emergent explanatory themes.

Our approach has limitations. We traded width for depth, limiting the generalisability of our findings, but we believe that conceptual generalisability is useful. Our sample is made up of very small businesses, and size clearly has affected how they operate. However, our justification is that most rural businesses are small and typically reflect the rural context. We might also be criticised for the subjectivity of our interpretations; however, all meaningful analysis aimed at understanding is inevitably subjectified. We will be satisfied if our findings provide a sound account of what is happening and if our interpretations are convincing.

Data and initial analysis

Our initial analysis reflects the heterogeneity of business types deemed creative businesses and illustrates variety in creativity as a "business" input. To be a business implies economic function—an outcome. To be a creative business, however, implies a high proportion of aesthetic input as value added (Lash and Urry, 1994). Traditionally, these separate realms are understood in opposition rather than in synergy (Cursiter, 1943).

Indeed, Stanbridge (2004) proposes that from the founding principles in Baumgarten's *Aesthetica* (1750), creative appreciation was always "disinterested", taking a "lofty approach" (Dworkin, 1985). We have seen art for industry and art in industry (Roodhouse, 1997), but only in this new cultural turn do we see art as industry. Hence, enquiring about how the aesthetic engages with the business helps us to better understand our respondents' businesses and, in turn, to comprehend how broadband affects what they do.

An overview of our respondents and creativity in their businesses

All of our respondents' businesses fit the category of creative industry, but the extent to which they incorporate aesthetic varies considerably. For example, Virginia moved to the Highlands from London to work in productions. To realise her business's objective of "*learning and have fun*", she creatively blends rural Highland icons (from Lochs to Highland cows) with traditional rhymes and musical sing-alongs.

"*It's very much in the local area up here.*"

Virginia's DVDs *re*-present a jolly, light-hearted rural idyll. The commercial element lies in selling this artistic creativity. Scott is a local with two long-established businesses; his first as a watercolour artist is very similar to the way that Virginia *re*-presents local scenery.

"*I produce generally Scottish-themed work*".

However, Scott's cultural production as a bagpiper is a symbolic ritual performance where cultural value is added in the entertainment, for example, at weddings. Commercial value is created from the performance. In contrast, David, originally from England but now locally established, "sells" internationally. His theatrical lighting and sound design business is entirely engaged with creativity.

"I do a lot of work where I re-create other people's work so, for instance, I would go out with the show and I would re-light it. So I would be re-creating the original designer's work but obviously fitting it in to different spaces".

From design to production, the artistic product becomes part of a creative performance for aesthetic consumption. Commercially, David rents out his creativity so that the commercial value lies entirely in the creativity itself.

Jack is a long-established local. His business of producing and broadcasting radio and television programmes uses creativity somewhat differently. In essence, Jack collects rural facts and information to create "stories".

"It's all focussed on a rural environment and 90 per cent of it happens in the rural environment."

Like all good narrators, he uses his creativity is to make this interesting. It is not "artistic", as conventionally understood, but commercially valued as packaged "knowledge" for easy consumption. Interestingly, Janice's Americana music performance is also packaged, but as "entertainment". Creativity and aesthetic value is added into the performance.

The development of Magda's gallery and workshop venue was a creative act. However, the business does not use creativity directly but is embedded in creativity. Magda used to lecture about art, so perhaps her "creativity" was always one stage removed. Indirectly, she creates a space for creativity; she enables creativity by running workshops.

"I like to give space here to people who haven't got it, who would like to be involved in things, and I get pleasure out of doing it as well".

Of all the businesses we examined, Magda's adds the least direct aesthetic value and is the most conventionally commercial, which is somewhat ironic because all her profits go to charity.

Doreen's business organises shows and events and offers marketing consulting. Of our sample, she is the most commercially focussed. However, she talks about "flair", which we see as the creativity which is added to what she does. Janet's business offers specialist art and craft materials. Like Magda's gallery, she supports the creativity of others and is embedded in creativity, but again with a primarily commercial focus.

Roddy describes himself as an arts practitioner, which hardly does justice to the range of his creative activities.

"I've worked in music for – since 1980. And I also work across various other art forms as well, so I've done quite a lot of performing, I write music and I record music and I also have been quite heavily involved in music education and creative projects. I also create sound-based artwork from time to time and I also use visual material; I make photography and multi-media as well."

The scope of Roddy's creative engagement is broad. Indeed he told us, *"I was the artistic director for the finale of the Tall Ships Race".* Roddy left London 20 years ago to gain more physical space and because less expensive property allowed him to create a recording studio.

"In London, we couldn't afford to buy anywhere to live. Here, I can afford; we've been able to pay for this place, and I can have a recording studio here."

His remote rural location enables some of the practical aspects of what he does but has little aesthetic influence. Roddy's work is artistic productions imbued with creativity; in effect, he performs to sell to others.

Jim produces videos and musical recordings. Like Roddy, he is based in a remote rural

Respondent	Business	Creative element	Commercial element

location. He works creatively in the production of his outputs. He collaborates extensively, so the focus of his creativity is in bringing elements together in a packaged performance production. Table 1 describes our respondents and the relationships between creativity and commerce.

 Table 1. The respondents - creativity and commerce

(1) Scott	Artist and bagpiper	Artistic production Musical performance	Sales of paintings Entertainment service
(2) Virginia	Musical DVD productions	Imaginative combining of locality, image and music	Sales of an edu/entertainment product
(3) David	Theatre and lighting designer	Productions with a high level of aesthetic content	Contracts, renting skills Functional artistic creations
(4) Jack	Producer and broadcaster	Some literary input and crafting as performance	Sale of packaged information and news
(5) Janice	Musician	In performing the music	"Entertainment" value
(6) Magda	Artistic workshop and gallery	Limited to a background as a context	Providing creative space for others
(7) Doreen	Market research, events and consultancy	Shaping events by adding some creativity	Sale of expertise
(8) Janet	Art and craft supplier	Applies existing aesthetic content	Product sales
(9) Roddy	Music producer "Arts practitioner"	All aesthetic creation	"Sells" his creative value-added productions
(10) Jim	Video and music producer	Aesthetic productions	Sells packaged creativity

Findings

Although all the businesses are "creative", we see that they employ creativity in different ways. One recurrent theme is how creativity is used as a fundamental element in the aesthetic production, so that creativity is almost an end in itself. Another theme is creativity as part of a larger process, and a final theme is creativity as background to a more commercial focus. In each case, some value is added by creativity, but we can distinguish whether the businesses perform creativity, apply creativity or simply use it. Table 2 categorises the respondents and attempts to relate creativity as an input or output.

Table 2. Engagement with creativity

Performing creatively	Applying creativity	Using (others') creativity
Virginia	Scott	Magda
David	Jack	Janet
Janice	Doreen	
Roddy		
Jim		

←   as input   ………………… Creativity ……………. as output   →

Collaboration and communication

Interestingly, we note a link between the form of creative engagement, collaboration and broadband use. For those who perform creativity, collaboration tends to be about creative collaborations. Roddy works extensively with others who do not live on the island and talks about *"working together on productions and events"*. He described an example:

"I made a piece of music where I was on stage with a bunch of music technology and video technology, with a set of mobile telephones, and people were phoning in their components of the entire performance with mobile phones and were sending in images as well.

He also comments about a more instrumental aspect of collaboration

"really helping me to develop business ideas."

Similarly, Jim commented,

"for us to collaborate and ultimately deliver things to clients, broadband is an absolute essential tool".

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Interestingly, we note that that creative collaboration takes on a sense of being more than one-to-one, but of one-to-many—the creative milieu itself.

For those who apply creativity, collaborations are instrumental for getting things done. Scott, for example, first explained why he connected to others:

"I think that's quite valuable to keep in touch with how other people are finding things in terms of you can learn from people".

Then, he described the benefits of connecting:

"It's nice if somebody is interested in buying a piece and has some sort of conversation with me and perhaps understands where I'm coming from".

Jack's business is broadcasting, and he told us that he typically works with 2 or 3 colleagues to make a programme. Accordingly, much of what he does depends on ICT connecting:

"I had a producer in Glasgow who had e-mailed me his voice thing, put it in my programme, mixed it all together and then sent it back to the studio in Aberdeen".

Nonetheless he concluded,

"I was doing hundred-mile round trips to do things that take me five minutes on the Internet".

Collaborations were functional and about getting things done together. For those who use the creativity of others, their concern is best described as communication. Magda told us,

"It just would be nicer to have better connectivity with people and know what they are doing as well because we all inspire each other, don't we?"

Thus, we see that collaboration can be categorised as creative to instrumental to functional. We turn now to examine the role of broadband in these practices.

Forms and functions of ICT application

Table 3 summarises how our respondents used technology. All respondents used ICT, but the extent and type varied quite considerably. We were especially interested in broadband, supposedly a pivotal technology for creative businesses.

Table 3. Respondents and their use of ICTs

Respondent	ICT purpose	Type of Technology	ICT added value, benefits
Scott	Communication for marketing	Uses 3G phone	Visibility and presence, Better targeted marketing
Virginia	Attempts collaboration, marketing	File share Email Web research	Makes marketing connections, but collaborations are very problematic
David	Some collaboration, supplementing travel transmitting designs and information marketing	No home broadband 3G	Essential for communication because of rural location Some travel reduction
Jack	Collaboration. Connecting and keeping up to date with unfolding events	Everything possible Lots of workaround solutions	Speed of links, travel reduction
Jamie musician	Marketing, especially sales (also tried crowd-funding)	Website and limited social media	Presence and visibility
Magda	Basic communication	Emails and limited social media	Improved and less expensive communication
Doreen	Substantial interaction Information sharing	Satellite Broadband extensive	Speed and wider interactions
Janet	Marketing	Website and email only	Visibility of product
Roddy	Collaboration and communication	Email, Dropbox, website	Reduces travel
Jim	Artistic collaboration, joint works	Various technologies, but often as workaround	Allows him to live in a rural location

We found that many respondents could not obtain fast broadband, so they innovatively substituted other technologies to obtain similar benefits. Of these uses, email was an essential communication tool for all of our respondents.

Almost completely replacing postal service, email was relied upon to exchange information with clients and collaborators. Scott, the artist and musician, is a good example of using email for marketing. With limited physical contact because of his isolated location, he uses email to "explain" his pictures to prospective customers. He feels that galleries do a poor job of *"understanding"* his work but that he can explain by email, which *"gives it a personal flavour in the artefact that they actually purchase and it means I've got more control in producing and selling the product"*. Virginia keeps in touch with collaborators and the "scene" by email, but she expects much more from her broadband. David, a theatre designer, depends on email for getting work and maintaining contacts. Jamie is a more passive user, but she nonetheless relies on emails to respond. Jack was our most intensive user of all communication technologies. In his constant travelling, he depends on email for being available. Doreen told us she simply uses email to get things done. Magda has merely replaced post with emails. Janet's use in her craft supply business is similar; she responds to orders and enquiries generated by her web pages. Scott, a musician and artist, relies on email for keeping informed and connected. It seems, then, that emailing is the primary functional use of ICT.

Although emailing was a fundamental application for all, for many, the disadvantage of being rural was manifested by poor broadband connections. For example, David's very poor broadband makes him dependent on the limited capacity of his mobile phone: *"I've adapted*

my working practices, I've got an iPhone now, so I've got good e-mail on 3G …and there is even a little bit of 3G if you go that way, so…although only under certain weather conditions". However, even this situation is not without problems. To get a decent signal, he has two choices, a 5-mile drive or a steep climb up the mountain: "*Texting is almost possible here. If I stand on the rock in the front garden with a telephone above my head, there are times where I'll get one bar. It seems to be very dependent on atmospheric conditions; raining is best".* More generally, document exchange by email was problematic because of the slowness of connections.

Marketing was the second generic function of ICT. As we described earlier in Scott's and Janet's examples, this can include sales, but ICT more often provided a presence—a shop window for services offered. Janet is typical in that she uses her website to showcase her craft supplies and products. She cannot trade online and has to phone or email. Virginia uses Amazon for sales of her DVDs and has a website. However, her business partner in London has to do all the updating. This partner also uses Twitter and blogs for marketing. However, Virginia gets frustrated that she cannot do these marketing tasks herself: "*I am very much held back by not having a decent broadband connection, where I get things quickly*". Jamie is an interesting example, a musician who sells his music through ITunes, Amazon and Amazon MP3. In contrast to Scott's proactivity, Jamie appears to have a fairly passive approach in that he sets things up online, or has others do it for him, and then waits for emailed enquiries. Jamie is tech savvy, but financial constraints seem to limit what he actually does more than technological restrictions.

We turn now to the creative element in the businesses, where collaborative practice was highlighted in the "creative promise". Many respondents referred to collaboration, either for inspiration and ideas or for producing something together. However, most also experienced difficulties in realising the potential. Virginia cannot collaborate through Skype because it breaks down: "*I don't have the technology back up where I can say we'll just do this as a video conference call or whatever".* Jack's work as a producer demands extensive collaboration in putting together programmes. In addition to extensive communications for planning, he shares large audio and graphic files. He explained that these can be challenging: "*You can work round it, you can make life easier and better and faster and with a faster broadband. My colleague lives in a rural area as well; with a decent speed of broadband, we could do the whole programme live, we wouldn't have to go to Aberdeen … I could do it from home, he could do it from his home. So we're not at that stage yet, and if we did it by satellite with something like a five-second delay, each, so it would be ten seconds out of (phase) and it gets horribly clunky. You talk over each other and it's not feasible.*" In fact, he has developed many clever techniques to overcome the problems.

Roddy is based on a remote island. He has a small recording studio but also works extensively with others who do not live on the island. Roddy has had considerable success locally, but he struggles with collaborations off the island: "*If I'm involved in creating a project that is going to use some media, I just have to go… or use the post".* He explained that last year, he produced a book, but he had to ask, "*can you just bung everything on a DVD and post it to me".* He said, *"It was a nightmare because the broadband was so slow."* Indeed, he uses FaceTime as opposed to Skype because it seems to be a bit more efficient in its use of bandwidth. He told us that he had "*created multi-media work that still gets written*

about in academic circles as being pioneering use of the media," but "*I can't really get involved in that kind of thing with any certainty now or without thinking, 'I'm going to have to put things on to upload or download for days on end'".* He worries that, *"you don't look professional… this guy is not in the 21st century."* He would like to do more real-time interactive material: "*That would be an interesting thing to do and you can do it, but not here ".*

David is a theatre designer, specialising in lighting. He frequently collaborates but finds it best to physically travel to meet. He also explained, "*I can function perfectly well as a designer here, although I am missing out on the communication side of things quite badly".* He has evolved some clever work-around strategies, such as keeping demos, CVs and work examples on Dropbox. However, he worries about being *"up-to-date with technical developments in my field."* Table 4 summarises the extent of our respondents' technology dependence and the effects on their practices.

Table 4. The application and use of technologies and practice change

Respondent	Technology dependence	Quality of broadband	Practice change
Scott	Low, but seems to add some value	Very poor, uses 3G	Minor, change in marketing style
Virginia	Necessary and essential for her business	Slow	Makes the business possible
David	High, but scope is limited by range of technology that works	No home broadband, uses 3G	Reduces travel, but he has to travel 5 miles to get a phone signal
Jack	Very high, critical	Slow	Substantial changes in how he works
Jamie	Quite low, yet makes the business possible	Slow	Modest change to practices, but could do much more
Magda	Low	Medium	Replaces post and some social media
Doreen	Critical	Very good	No change but extensive and essential use

Janet	Medium (augmented by telephone)	Very slow	Allowed her to move the business to the countryside
Roddy	High	Poor, but many workaround solutions.	Enabled a move to the countryside but frustrated by technology limits
Jim	Medium, but loves the idea of remote connecting	Hampered by slowness of broadband	Allows a rural lifestyle, but takes too much time and patience

Discussion

Our findings show that our respondents had quite sophisticated knowledge of broadband's possibilities but were only able to use a very limited range of technologies. Email was employed as faster and better than post or even telephone. However, the full range of email capability (e.g., large file transfer) was often not fully available. We also observed a determined effort not to be isolated or distanced from customers. Indeed, considerable energy and ingenuity was expended to have a "presence" in the field. Often manifesting as a shop window for marketing, Internet presence substituted for physical availability.

In terms of our research objectives, creative collaboration functions and use provide the greatest conceptual leverage. The literature deems these constructive relationships and the ensuing "creative climate" as a major feature of cultural industries. However, we observed very little collective interaction and had no sense that there was a collaborative clustering online. We observed little collaborative synergy but instead mainly purposeful and instrumental one-to-one connections. Of course, the ideas about a creative milieu (it is an amorphous construct; Wojan et al 2007) are much less substantive than, for example, that

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of a Marshallian district where businesses co-located in industrial districts develop and share skills, expertise and innovation through the sharing of knowledge. Thus, specific artefacts are difficult to pin down. Nonetheless, if a *virtual* "creative climate" exists, we would have expected our respondents to mention engagement. Instead, we heard about past urban experiences and how they missed being on the scene. Rather than a digitally enabled dynamic of interactive connections, we found technologically flimsy networks fraught with technological anxieties. There was no evidence of a milieu of creative collaborators.

On the other hand, the determination to overcome distance and rural isolation shines through in the adaptability and the willingness to experiment and persevere with what can be done. We cannot "know", but this determination may be part of the rural trade-off, where the appeal of the countryside as a good place to be is tempered by restraints on what it is possible to do. Many had self-selected a rural lifestyle and some had anticipated some problems. However, the problems proved to be much more troublesome than they had anticipated. It seems, therefore, that the capacities of ICT have not quite delivered on their promise in the rural setting.

Most troubling is the respondents' concerns about being left behind. As respondents worked around problems, they became acutely aware of the rapid shifts and progress in the technologies available to others. Rural technological improvements helped, but they always lagged behind what could be available. As Scott put it, "*I'm kind of being left behind quite a lot, back in history".* More positively, faster broadband will go some way to bring Scott and others back to the future. In the meantime, the digital promise remains a tease.

Conclusions

The nature of the rural—perhaps its implied naturalness—serves to stimulate the senses and instigate imagination (Costa, 1991). However, this inspiration is beholden to the otherness of the rural—the things that set it apart from the urban—and represents a paradoxical conjunction of the metaphysical and physical (Anderson 2000). The same things that inspire may also separate and isolate the rural from the urban. Thus, it seems that rural Scotland is a good place for creativity itself but a poor place for actually using creativity. Inspiration is individual, yet the use, the application of creativity, is not performed alone but with others and is thus a socialised activity. It is the attributes, the perceived qualities, of rural places that offer creative stimulation and appeal to and engage with the individual. In contrast, the urban milieu is a social arena for interaction. Places play different roles in creative productions. Viewed in this way, we can discern how different properties of rural place help to explain the nexus of creative people and creative places.

In all the cases described in this paper, ICT in practice was quite different from the technological transcendence of distance. In some cases, it seemed to amplify the difference of distance; as technologies become more sophisticated, they move further out of the reach of rural users. It was also evident that better ICT could contribute much more by providing richer channels for those creative sparks that would ignite imagination and innovative practices. We found no evidence of an electronic creative rural milieu but rather loosely coupled individuals.

We conclude that broadband *allows* because it makes some things possible. However, it is far from a complete enablement and only a very partial empowerment. Broadband allows some functions, but our respondents seemed to be constantly compromising their capacity by juggling and working around the limitations in what they wanted to do. That said, without ICT, most of our creative respondents could not make a living in the countryside. This would be a loss of diversity and of local and incoming talent. Moreover, these businesses do create jobs, but much more as the quintessential *small rural living* than the great expectations of ICT-empowered radical rural change.

Further research

We were only able to glimpse how much the rural stimulates creativity. We heard how the rural inspired, but we also observed trade-offs as distance dampened the creative spark. We see the next big question to be *how much of the rural is in these cultural productions*. Furthermore, in taking a closer look at the geographies of collaboration, we observed very few examples of social proximity but many dispersed functional collaborations. From the literature about the innovation cluster, can we learn about how social distance might be as important as rural geography for creative businesses?

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