What is the point of technology if no one uses it?

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What is the point of technology if no one uses it?

Ruby Roberts

A sustainable future is closely linked to creating and adopting innovative technologies. These new products, services and ways of working may solve many of the challenges we face as individuals and as a society. However, to unlock the power of innovation, these technologies must be adopted and deployed. How we produce and consume energy is a critical element of a sustainable future.

Consequently, the oil and gas industry need to embrace innovation for a successful and rapid energy transition. Whilst the industry is working towards an integrated energy vision, adopting innovative technologies can still be sluggish. The current climate, organisational restructuring and budget cuts can all negatively impact on innovative activities. So, how can we accelerate innovation uptake in the face of these challenges?

Research from RGU's Aberdeen Business School and OGTC aim to provide insight and support in technology uptake in the oil and gas industry. Given that it is individuals who make both big and small technology decisions, it is unsurprising that human psychology can have a powerful impact on technology adoption.

Keeping this in mind, Professor Rhona Flin and I took an alternative approach by examining the psychological factors which influence technology adoption decisions in upstream oil and gas. Over the course of the two-year project six key psychological factors were identified. These ranged from how innovative decision makers are, whether the technology and service provider were trusted, individual's attitudes towards innovation, to risk perceptions and expertise. Of these factors, the organisational culture of the adopting company was found to influence whether the innovation was deployed in the field or sat on a shelf collecting dust.

The digital DNA of the organisation was identified as a key driver for change. Leadership, organisational vision and strategy, risk taking for adopting new technology, collaboration, and incentives all contribute to the overall technology adoption culture. However, trying to improve your organisational innovation adoption culture can seem like an insurmountable task.

A good start is to know what your organisational technology culture looks like. In response to this, our team developed a pilot technology adoption culture measure. Twelve operating companies were invited to take part in a pilot industry benchmarking survey, examining their innovation adoption culture. This is the first time that innovation adoption culture has been benchmarked in oil and gas.

The results were not surprising. Issues around open communication between departments, procurement procedures, or struggling to share lessons from prior deployment projects were common. Nonetheless, the outlook is positive. Innovation is valued and overall, it is anticipated that uptake is set to continue to increase in these organisations in the coming years. Many of

the methods and practices used to introduce and develop safety culture could be applicable to this new challenge.
My advice is that innovation is hard. Don't feel bad if you find it difficult to improve innovative activities in your company. But do not give up as it is important that we all work towards a more sustainable future– endeavour to persevere.

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