

# The Role of Culture in Digital Transformation

## Digital Xchange 2017

Roger Camrass (University of Surrey)  
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## Introduction

Organisational culture is often the most difficult obstacle to tackle in any substantive transformation – digital or otherwise. Understanding where an organisation's culture is today can be complex due to many hidden factors. At the University of Surrey, we gather together business leaders from organisations such as BP, Ford, GSK, and L&G to discuss such issues and share experiences and tool kits. Here is a summary of our workshop on the role of culture in digital transformation, held in October 2017.

The workshop was organised by Roger Camrass, Visiting Professor at the University and John Oswald, Partner with Futurice, a leading European consulting house.

## Session 1: Introduction: Professor Alan Brown – What is Digital Transformation?

Alan opened the meeting by providing some context for the role of culture in digital transformation. Digital Transformation can mean different things:

- The adoption of new technologies to perform substantially the same activity as before e.g. upgrading an ERP system, installing cameras in a lecture theatre
- Incorporating new technologies into existing objects to enhance their functions – e.g. body monitors in watches, connected cars and homes
- Streamlining processes by drawing on enhanced data – e.g. stock level monitoring
- Refocusing value from 'product in manufacture' to 'product in use' such as a jet engine or MRI scanner (where 'data in use' can deliver new commercial opportunities)
- New business models – changing the way businesses make money, from traditional sales of products to provision of outcomes (e.g. from cars to mobility)

These developments have complex implications for organisations, and raise important questions around **Trust**, **Value**, and **Risk**. These have consequences for the people inside organisations, the activities they undertake, the way they undertake them, the capabilities they bring and the things they need to know to be successful – and of course culture is a central to all of this.

Many – and perhaps most – established organisations are wrestling with these key elements, and are trying to come to terms with digital business models. CoDE – the Centre for the Digital Economy at Surrey University – assists companies by helping them to interact with and assimilate digital trends, and apply the learning to real life situations.

We do this at CoDE through four types of activity – by undertaking research; providing executive education; working with individual businesses to address specific problems that they are facing; and facilitating connections between different organisations – large and small – to help share learning and experiences. This is the basis of our 'digital Xchange' programme that links large corporates to the University's digital activities.

## Session 2: State of Practice – Jacqueline Abbot-Deane

**Sir George Cox:** *Culture is the only sustainable competitive advantage*

This session looked at the 'state of current practice' relating to how cultures have developed historically within corporations, and how best to describe these. Most cultures – especially those in the room, were developed in traditional 'analogue' businesses such as manufacturing and banking.

These vary dramatically with the cultures of digital native and start-up companies. Achieving digital transformation requires an understanding of where we are now, and where we need to be in a digital future.

Jacqueline presented a simple diagnostic tool covering 11 features that recent research has identified to describe a culture that is ready for the changes that digitalisation will bring. Organisations can use this as a starting point to assess their 'As-Is' culture (see Figure 1 below).

**Figure 1 – Pulse Check for Organisational Culture**

<b>Decision Making</b> <i>Centralised, Autocratic, Slow, Time and Resource consuming</i>											<b>Decision Making</b> <i>Devolved, Rapid Autonomous, Data driven</i>
<b>Processes</b> <i>Well-established, Routinised, Efficient, Fault intolerant</i>											<b>Processes</b> <i>Nimble, Reflexive, Fault tolerant, Easy to change</i>
<b>Risk</b> <i>Risk averse, Intolerant of mistakes</i>											<b>Risk</b> <i>Open to experimentation, Tolerant</i>
<b>Mindset</b> <i>Keep the past alive, Focus on the current and past, Certainty, “Must Be”</i>											<b>Mindset</b> <i>Look ahead, Multiple Scenarios are considered, Curiosity, Ambiguity, “Could Be”</i>
<b>Innovation</b> <i>Only as needed, Legacy is highly valued and protected, Centralised function, Mostly In-house</i>											<b>Innovation</b> <i>Encouraged, Rewarded, Culturally Embedded, Happens at multiple levels, External resources leveraged</i>
<b>Technology</b> <i>Legacy systems are dominant, protected and valued, Represents substantial percentage of asset value</i>											<b>Technology</b> <i>Digitalisation is embraced (cloud technology, connectivity, mobility)</i>
<b>Leadership</b> <i>Command and Control. Hierarchical, Expert</i>											<b>Leadership</b> <i>Tolerance for Divergent Thinking, Encourage voice, Mentor vs. Boss, Learner</i>
<b>Strategy</b> <i>Traditional, Thinking about Digital, Customer independent, Guided by certainty</i>											<b>Strategy</b> <i>Prepared for the Digital Economy, Expanding partnerships, Preparing an Agile workforce, Customer co-dependent, Ambidextrous Organisation</i>
<b>Communication</b> <i>As needed basis, Guarded, Lack of transparency, Employee voice can be muted (silence)</i>											<b>Communication</b> <i>Open, Cross-silo, As much as possible, As soon as possible, Voice is encouraged</i>

<b>Team Structure &amp; Dynamics</b> <i>Fixed, Static knowledge, Silo</i>		<b>Team Structure &amp; Dynamic</b> <i>Flexible, Movable, Interchangeable</i>
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Applying the framework to the organisations present in the room raised several talking points associated with cultural change, including:

- *The importance of leadership*. Both Ford and GSK have recently seen new CEOs appointed, and in both cases, this has resulted in an immediate change of corporate mindset, and a new perspective around what is important. It raises the question of whether it is possible to change an established culture without top level leadership support.
- *Attitude towards risk* is a key determinant of a corporate culture. Spotify has adopted the concept of 'Limited Blast Radius', which seeks to create a situation where the impact of any failure is confined to a particular part of the organisation, and cannot damage the wider business. One common failing of organisations is that they apply a common attitude towards all risks, regardless of the scale and potential impact of those risks – for example, the same rigour of procurement may still be applied irrespective of whether the business is engaging a major contractor for a critical project or buying paperclips.
- *Mindset is critical* in determining willingness to change or evolve (glass half full versus half empty). A digital mindset requires broad education and capability upgrades. Open minded organisations are ready to explore new opportunities that are presented by digital business.
- *A common language* and message is very important in helping to reduce ambiguity and provide clarity.

Some interesting examples/case studies were discussed such as:

- A refocusing on outcomes in the case of Aggregate Industries – using technology such as embedded sensors, to constantly monitor road surfaces, thus reducing cost of maintenance
- Moves by professional service firms such as PWC away from 'charge by the hour' to outcome based pricing (risk and reward)
- Start-up banks such as Metro where the CEO provides constant communication and active support for change

### Session 3: Case Studies on the State of the Possible – Roger Camrass

Having used the 'Pulse Check' to determine where each organisation is today on the cultural spectrum (state of current practice), this session focused on the lessons learnt from pioneering companies that have begun to transform themselves (e.g. the state of the possible). Delegates visited separate booths to hear from experts about traditional and new-world organisations who are experiencing cultural transformation.

#### Google – Stephan Thoma

Stephan described how Google has learnt to maintain a culture that enables it to innovate at scale, having grown from 2 founders to 70,000 staff in just 20 years. It applies a 70-20-10 resource allocation model across the business and its people:

- 70% of a function, or even down to an individual's level person's time, should be spent on the core products, processes and services that are to be delivered
- 20% on on-going enhancements to those products and services – 'better, faster, cheaper' that provide incremental performance improvement (10-20%)
- 10% to new projects and innovation – including those that potentially could change the game – so called 'moon shots' or '10x' projects that could take the company forward by factors of ten or more

Some of the critical factors that maintain an innovative culture operating across the entire organisation include:

- Weekly 'open microphone' Q&A open house sessions for employees where the founders and exec team have to respond to any direct questions or context setting asked of them
- Hiring processes that ensure full alignment of role related expertise, cognitive and leadership capabilities and cultural
- 20% permission for people to work on innovation and value adding initiatives
- The physical work environment that is the physical manifestation of the culture, thus driving innovation, collaboration and access.
- Some of the downsides of the Google culture are a lack of life balance – obsession with work; and a certain level of arrogance associated with Silicon Valley.

### **Ford – David Russell**

David described the product development process that operates within the Ford Motor Company in Europe and elsewhere. This process involves a range of technologies such as CAD and CAE as well as digital pre-assembly of vehicles (starting to use virtual reality). Digital disruption across the automotive sector is forcing OEMs such as Ford to adjust rapidly to new market conditions such as electric and autonomous cars. The new vision for Ford is to be a leader within the 'transport operating system' – taking the firm beyond vehicles into digital applications, eco-systems, etc.

Development activities have traditionally been segmented into narrow siloes of effort and capability to increase efficiency. This has often reduced opportunities for genuine innovation across the end-to-end development cycle.

A recent study conducted with Futurice has examined how the product development process can be better integrated across capability siloes using a range of digital tools and cultural evolution. This is intended to improve user experience, foster rapid innovation, and encourage more collaboration. Co-creation teams are being created between engineering and manufacturing to simplify organisational interworking.

The new CEO, Jim Hackett, has promoted design thinking in Ford, with emphasis on short sprints that deliver innovation at speed. He is also interested in applying new ways to justify investment – balancing cost against intangibles (quality, speed, etc). "

### **GE – Jacqueline Abbott-Deane**

Jacqueline described the radical changes that have been taking place within GE, including the divestment of several core businesses (e.g. financial services), the acquisition of new companies and related capabilities (e.g. PREDIX), and the widespread upgrading of staff. The vision of the former CEO, Geoff Immelt, was to become the leading digital industrial company in the engineering sector.

To make GE a digital industrial company, certain changes have been required:

- Change the view that tomorrow looks like today
- Revamp GE's strategy, portfolio, global footprint, workforce and culture
- Make initiatives more interconnected
- Generate greater productivity for GE and its customers
- Clarify and focus on what GE is good at
- Simplify and reallocate resources

This has implied some major changes such as a refocusing on high tech, manufactured products, and services – divesting slow growth, low tech, non-industrial business. Increase investment in R&D to accelerate growth. Become truly global, with focus on emerging markets. Simplify structures, less top-down, more bottom-up.

Divisions such as GE Healthcare have already transformed themselves by moving away from discrete products (e.g. MRI scanners) to end to end services (clinical diagnostics). This has placed greater emphasis on the 'digital' aspects of the business – patient records, radiology, etc, and less on the background machinery.

The acquisition of PREDIX was based on the need to develop a digital platform for all of GE's industrial activities, and to provide interconnection to all trading partners across the engineering sector. This has had a galvanising effect on the role of IT as a digital 'enabler'.

### **BP Integrated Supply and Trading – Mark Seneschall**

Mark described some of his experiences as someone closely involved in the establishment of a new and highly autonomous business unit within BP, which consolidated all the energy Trading and hydrocarbon Supply activities (the latter to meet the needs of BP's refining and marketing businesses) into a new entity, Integrated Supply and Trading (IST).

The new unit was expected to drive innovation and improved control into the activity set, both of which had profound cultural implications. Some of the initiatives undertaken in support of this were:

- 'Business Linkage Workshops', with a cross section of participants from across the business to share understanding of how the different pieces fitted together in the new unit
- Capability building through recruitment and education, as well as a programme of staff moves to transfer knowledge and 'mindset' from one component part to another – the latter was at best only a partial success, due to reluctance on the part of individuals to move, and where moves did take place, the ability of those transferred to influence their new colleagues
- New processes e.g. to support innovation by providing dedicated facilitators to help progress new business ideas

These changes had cultural implications – equally, the change in culture required changes in behaviour, education, the mix and capabilities of staff, and the supporting processes.

The unit was in many respects very successful, but as an autonomous entity which received significant support from the BP group CEO, receiving a disproportionate share of resources, and permitted to opt out of many group level initiatives, also attracted a lot of resentment; ultimately, when the CEO departed, this resentment resulted in a scaling back of the unit and a reduction in the degree of autonomy afforded to it. This is a common pattern for such autonomous units, and whilst the concept of a new, separate entity as the vehicle to pursue an organisation's digital ambitions is attractive, such an approach also gives rise to considerable challenges, and cannot be seen as a panacea.

## Session 4: What does a Digital Culture look like? – Jacqueline Abbot-Deane

Using the diagnostic framework shared previously (Figure 1), participants were requested to consider which cultural elements were most important – and provided the most significant challenge – in the context of Digital. Points arising from the discussion included:

- One perspective was that Decision Making, Processes and Communication were all priorities
- Use of proof of concepts provided a vehicle to progress a transformation and shift the culture. This raises the question of what a good proof of concept should look like.
- Legacy technologies – such as embedded ERP systems – are a major barrier to change in many organisations – so finding ways to reduce the importance of and dependency upon these is critical
- If you can create a situation where you invent everywhere, you reduce the tendency for a 'not invented here' mentality
- Organisational learning is a key lever to making progress – this is different from Training, which implies that the knowledge is already available and it's simply a question of sharing it.
- Measurement is an important driver of change in many organisations, since what gets measured gets managed
- Creating safe spaces to fail
- 'Fast beats slow'

A profile of Google was discussed – representing the cultural attributes of a digital native (see Figure 2 on next page). Most delegates agreed that this had only limited applicability to traditional companies, many of whom required a greater stability (e.g. Oil and Manufacturing).

**Figure 2 – Pulse Check for Google**

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## The importance of Voice – Dr Rob Bogosian

Rob outlined the value of a culture in which employees expressed their views freely and shared their knowledge – even where this involved criticism of the organisation – rather than with-holding valuable information as was very often the norm in most organisations today. Recent survey results showed that 100% of business problems were known to staff, but only 4% were known to Executives.

A culture of Voice (as opposed to the prevailing culture of Silence) can:

- Encourage self-reflection and insight
- Enable everyone to contribute
- Promote divergent thinking
- Treat feedback as a gift not a threat



- Enable employees to learn and grow in their current role
- Become a competitive advantage
- Overcome the phenomenon of 'the bovine stare'

It requires leaders to ask and listen rather than to talk and tell.

Discussion points raised included:

- How to convince the executive of the bottom-line impact of this – answer: VW, Wells Fargo, BP and lots of other organisations are all paying the price for promoting a culture of Silence
- A culture of Voice will become even more important in the context of Digital, as organisations struggle to understand and make sense of what is happening around them, and will need to engage all their employees in supporting this. Most senior executives have grown up in a pre-digital age, and are less well placed to understand what's going on than many more junior employees.

## **What next: Digital Transformation as a 'Learning Journey' and a 'Campaign' – Dr Mark Seneschall and Professor Alan Brown**

Mark outlined a framework for helping undertake complex change in an uncertain and rapidly changing world, where organisations and employees are struggling to make sense of what is happening, and no-one is in a position to determine what the future might look like. Under these circumstances, conventional models of transformation, beginning with a clear starting point (today), identifying a specific future end-state, and then defining a series of actions in a project plan to effect the change from today to tomorrow is unrealistic – if it ever was realistic, which itself is questionable.

A more practical model of change is to start by building a better understanding of the current reality and what is happening, using this to inform a broad set of aspirations or intentions about future direction, and then undertaking some pragmatic activities that it is believed will help the organisation make progress in this direction, but will also provide the opportunity to learn and build its future capability. The current reality – which of course continues to change over time, and the progress of the actions taken, need to be kept under continuous review and the implications of these for both the longer term aspirations and direction and the next set of actions that will be taken in the short term.

To ensure consistency and coherence, and to manage the inevitable interdependencies and contentions between different short-term actions and initiatives, the suite of activities needs to be approached as an integrated 'campaign'. Monitoring the progress of this, maintaining coherence, ensuring that lessons are learned from the experiences gained, and then used to inform the activity set and the future direction, is a key leadership role in delivering change.

This approach can be seen as analogous on an organisational scale to the 'agile' methodology used to resolve specific problems. Fundamental to both is a learning mindset, where the future is fully informed by the lessons and experiences of the past.

Participants were asked how they might go about applying this framework in their own situations. Suggestions included:

- Invest time in better understanding our current reality
- Apply to a key initiative currently under way relating to product packaging
- Employing Voice to start to initiate change, and reviewing and then extending this over time

# Conclusion

Culture change is a key ingredient in Digital Transformation, and there is enthusiasm from both a CoDE perspective and on the part of attendees to continue to engage on this, as part of the wider agenda being promoted through the Digital Exchange; we will seek to organise a follow-up session around the middle of next year (perhaps in a more accessible location than Guildford) to share progress and lessons emerging during the intervening period.

## ABOUT THE AUTHOR



**Roger Camrass** pioneered today's Internet, working as an ARPA research fellow at MIT in the mid-seventies. Since then he has helped Fortune 1000 corporations across the globe to adopt successive waves of new technologies, from mobile and e-commerce to cloud and data analytics. He is a visiting professor at the University of Surrey and director of CIONET in the UK. He has authored numerous papers and books, including 'Atomic: reforming the business landscape into the new structures of tomorrow'. Visit [www.rogercamrass.com](http://www.rogercamrass.com)