“Superhuman effort isn’t worth a damn unless it achieves results”

Sir Ernest Shackleton
Chapter 7

Digital Disruption and IT Driven Innovation

“What’s a Digital Director?”

Boards are awakening to digital disruption and IT-driven innovation. On one hand there are clear opportunities, on the other considerable uncertainty. How can Directors and executives bring innovative thinking into the organisation without scaring everybody?
The impact of digital in participants’ minds was, without doubt, enormous, ongoing, and in many cases creating transformational impacts on business now and in the future.

“Affecting all businesses.”

“Digital will revolutionise just about every business.”

“Immediately – see big disruption in retail.”

“The great problem is that everything is being commoditised, especially areas that used to be margin rich. For example digitisation is changing some advice based businesses that used to be margin rich into commodity businesses e.g. trading businesses/stockbroking.”

“ Longer Term:

- Technology will move from ‘a facilitator of speed’ to ‘having the capability to replicate experience’;

- The consequence will be the need to trust the technology as the traditional model of work your way up through doing the junior tasks will not exist (technology will occupy) and hence when reviewing an output of the technology that has experience capability we will have to “trust” as we will “not have the intuition from experience to question”; and,

- Technology will be better than people at providing the answer.”

“Consequence for jobs in the future? Don’t know.”

“Digital disruption will change functions. E.g. finance functions will be reduced by more improved digital technology.”

“Fear is the greatest of all motivators and digital can bring not only disruption but destruction. With that reality comes a shift in company culture. Digital is changing the operations, company dynamics and whole culture of companies.”

“I was taught that the way of progress was neither swift nor easy.”

-Marie Curie
“Digital is changing the nature of business – distribution and reach means global.”

Defining digital became a little grey however with a more diversified view. Some thought, “It is not about big data – it is about big analytics – to give insight”, others talked about efficiency or innovation, while others had broader views or lack of clarity in their definition. The lack of a clear singular definition is more the case of defining digital in how it is applied in each business’ own context, which is its end use. It can be different across and within businesses, depending on the opportunity.

Directors articulated multiple views on digital disruption – some reactive and some proactive. Reactive views were based on a kind of intellectual reconnaissance of the global marketplace in order to spot threats to existing business models, whereas proactive views were about becoming the next “Google” or “Apple”.

“But it, the world, the tech world at the moment continues to disrupt itself and look out because if you don’t, someone’s going to clout you on the head. … there’s a mindset on the Board which is risk management, which is, know what’s out there so that you don’t get hit, so your business doesn’t get more and more disrupted. The problem is you don’t know what you don’t know!… There’s then the flip of that, which is you’re an entrepreneurial bunch. You have unique capabilities in IT that nobody else has. We’ve seen you do it and, you know, we’ve spent time believing that you can turn your IT capabilities to many things. … you have an entrepreneurial streak and you like taking risks. Go and explore that world because you might find something, you might find a train track that doesn’t have a stop sign at the end of it.”

There was clearly a fear, or at least an uncertainty factor when participants talked about digital disruption. This was sometimes attributed to the age of the typical company Director. The digital age was essentially viewed as belonging to the younger generation.

“If you don’t do something about digital disruption you will be caught short.”

“Digital and the internet are ‘frightening’. So much promise…but a much bigger and more complex haystack.”

“Some are ‘frightened and consumed’ by digital and the internet.”

“Re Digital ‘Fear is the greatest of all motivators.’”

War stories probably exacerbated this fear:

“We had been quite progressive and were leading but:

- Bigger disruption this time;
- Speed with which change spreads is faster; and,
- Changes in expectations”

“Digital. It is our weakness. We are vulnerable. Our strategy is one of catch up. So while it is a tremendous positive it presents a tremendous fear. We were not well prepared. The executives didn’t anticipate the size and pace of the wave.”

“No one foresaw how clearly it could impact soft good sales. The rate at which it hit was the surprise.”

One of the themes emerging in the interviews was ambivalence about digitally mediated opportunities for growth. Was it an oasis or more of a mirage? Those seeing a digital oasis focused on the “generation skip” of online buying in both B2B and B2C markets. In countries like China, for example, an entire generation views online buying with smart phones as the norm for shopping behaviour. These consumers have skipped bricks and mortar retailing and have gone straight to digital. Another example of “generation skip” is Africa where they have missed the step of the fixed line telephone and gone direct to mobile phones. This can be an enormous opportunity for many Australian businesses expanding into Asia/Africa because as they have no legacy business and more importantly no need for one, they can start with just digital and potentially be competitive, other things being equal.

There was clear agreement that digital expertise and innovation were going to be important in the future and some consensus about why this was the case. The participants also distinguished between digital and social media expertise, which they believed was essential for effective Boards, and knowledge of IT tools, which they felt could be brought into a company via external suppliers.

But participants seemed to struggle to pinpoint exactly how this expertise would influence their company or industry.

“I’m sort of interested in that. I’ve done some work in that and a couple of other areas. I can see some scope in that but I can’t put my fingers on it yet. … I mean there’s something in that but I can’t put my hands on it yet.”

The academic literature has also identified themes of fear, ambivalence, and uncertainty as to how Boards and executives grapple with opportunities and threats posed by digital growth.

However there was not agreement as to how this expertise should be introduced into the company. Some viewed appointing a “Digital Director” to the Board as a viable option:

“I’d like another Director … in an ideal world if I could add those skills somehow and keep the number, it would be digital.”

“Need a “red hot” digital person on the Board to bring it up to speed.”
"I can see when there is a need for an outstanding digital person on a Board, to bring the Board up to speed and be an outright champion. Digital brings the company closer to the customer. What happens with digital however, is merely a reflection of the Board and whether the executive has the appetite for change."

Others were more cynical about the idea:

“We were just in another conversation the other day with an advisory firm that brought the gurus telling us we all need a Digital Director on the Board. And you know, this was the conversation about ‘What’s a Digital Director?’ … I do think it is about thinking outside the dots.”

“A lot of Directors say, ‘Okay well we need just the digital slot. We need someone to fill that slot.’ And it’s like ‘Mate, it’s interlinked with your entire strategy.’ You can’t have one voice sitting there saying ‘Oh this is the future of digital’ because it’s everywhere.”

A variation on this idea was the notion of explicitly building digital expertise into the Board by appointing members with experience in a range of IT-driven industries.

“The Board at (company) in the US – the Chairman was the Chairman of the largest Telco in the US; the other guy was Chairman of the largest chain of department stores in the world; the other fellow he’s the professor of Economics and all the rest of it at (university), advisor to the (country) Government. They understand all this stuff, and it’s lucky because they come to the meetings, so they are absolutely prepared. … and you see the difference then, I mean these guys are absolutely on the money.”

Others identified alternate ways in which digital expertise could be introduced to Board thinking in lieu of making actual Board appointments (executives, consultants, agencies, and contractors).

“When the Board says, look, collectively we know we’ve got a problem in this area, we just don’t understand, we might have some people in to explain it to us.”

“Should we have a technologist on the Board? … We’ll get advisors in to talk about technology because they’ll have different views of technology. So we’ll use that, rather than having 8 technologists (on the Board). … We get someone quite young who actually is an end user. … You can get them in to talk to you.”

“The Board does not have to be across every detail, that is the role of the executive. The Board needs to understand disruption and a good CIO will inspire the CEO and Chairman.”

Another participant expressed this view in a different way: "What’s the point of appointing a Digital Director? Do we all sit there and defer to this Director when there is a digital issue to discuss or decide? That’s not good enough – the whole Board needs to come up to speed and contribute to the discussion and the decision!”

One company even went so far as to set up an innovation committee with a consultant from the US but no executive management on it.

When asked about why digital expertise was important to future success, participants consistently identified six ways that digital would influence company performance. The common theme or challenge was how to foresee the opportunities and take advantage of them. They were also adept at identifying specific examples of each.

- The first area was improving employee productivity.

“Technology/digital can be a saver of time. Takes time out of the day of workers – i.e. frees time, rather than coming to collect your job sheet for the day. It’s now online, on your ipad/tablet the night before”

“Digital allows us to provide technology to our sales force to close the deal at the customer meeting. It saves time and streamlines processes.”

“It provides real time to talk to customers and therefore enhances productivity.”

“You can close deals in the field. You are enabled to become closer to the customer. It supports planning and maximises efficiencies. It helps set out programmes and drives a more productive process.”

- The second area of digital influence was operational efficiency. Incumbents with established legacy systems will have to modernise their infrastructure in order to be competitive globally. For example, one CEO said the old adage of “we are proud of our ability to ‘sweat’ assets” effectively equates to “not being progressive”.

Others described additional ways in which digital knowledge was being used to increase operational efficiency.

“For us, digital is a lot about being able to gather structured and unstructured data in new ways and use that to be able to improve the productivity of the business. Because, if we get better data about when you actually need to maintain the machine, we can avoid downtime for the client, and do things in a more effective way.”

“We have devices that can tell you the temperature … We have devices that can tell you the impact … We have devices that tell you where they are all the time so they have very sophisticated capability … the technology is going to change, low power blue tooth is going to become more important so track and trace is a big theme for us. It is how we take dumb assets and make them smart.”

“Digital is a big efficiency lever through Big Data - gathering structured and unstructured data can lead to improvements with big analytics. The analogy is sports where physio and training performance can be predictive of game day performance.”

“Great opportunity to get more out of asset base.”
• The third area was product innovation. Here, some Directors suggested that much of the negative talk about the lack of technological innovation has more to do with having the wrong concept of innovation. Australian companies may be concentrating too much on looking for the ‘big I’ innovation rather than practical, ‘incremental’ innovation. Perhaps the search for ingenuity should be about ‘small i’ innovation instead.

“When it comes to innovation, I think too many companies are seeing innovation as being ‘big I’ innovation. … Using new technology, all of the (process) is completely automatic. … That’s innovation. And we don’t recognise that it’s innovation.”

Here, the focus is on product improvements rather than on major, disruptive, game-changing innovations.

“Can understand better how assets work and what can be put through them to generate new and innovative offerings to clients and thus new/enhanced business offerings.”

• The fourth area was marketing effectiveness. As with operational efficiency, this discussion was often framed in terms of data analytics.

“We know conversion rates. So a conversion rate for us is registration to becoming a … client. We know that’s lower when someone registers on a mobile versus registers on a desktop, and we know that because the experience on that is not as good. So that’s what we’re fixing.”

Several Directors discussed the importance of accumulating data on customer transaction history, and the huge opportunity to look at segmenting customers based on this data, leading to modifications of offerings.

“The objective of prescriptive analytics is not only to predict future outcomes, but also to make recommendations based on those outcomes. In focusing on the what, when, and why of future events, it attempts to answer the questions, ‘Now what?’ or ‘So what?’ and it completely changes the game of big data.”

“Do not go where the path may lead, go instead where there is no path and leave a trail”

Ralph Waldo Emerson
One wave of the future is applying mathematical algorithms developed to solve problems in other fields like meteorology and criminology, and applying those models to solve consumer issues rather than predicting when and where the next criminal will strike. This lateral thinking and application of something that is established in one field while being new in another field, is innovation. While raising the opportunity, the participant lamented the lack of lateral thinking in this regard.

“Collecting a whole series of crime data, and geographic data, where the crimes happened and severity of this crime versus that crime. And they started analysing this data using an algorithm that is actually about how you predict where the aftershock is going to be after an earthquake. They were finding that applying the same sort of algorithmic modelling to that crime data and then actually forecasting where the squad car should drive through the backstreets of LA over five years has actually reduced the crime rate by 20%. Because if I rob this 7/11 I’m going to rob another one, you start to see predictable behaviour in that. … It’s taking algorithms from Mother Nature and applying it to human behaviour to try and predict.”

The same kinds of data can be used to support company strategy. For example, one participant described a relationship between product bundling, cross-selling and customer churn rates. They discovered by analysing customer purchase histories – that was being used to determine the magnitude of discounts offered to customers via product bundling packages.

“Trends have shown … the more services you take from an organisation the less likely you are to leave, despite the quality and the price you pay. … We play that game as well as anybody else, in terms of trying to get bundling.”

The academic literature also points to the importance of data analytics in the future of marketing efficiency and effectiveness. Here, the idea is that companies that develop the most sophisticated systems for capturing, storing, and analysing customer data will be the big winners in the digital age of business. Perhaps an even deeper commitment to a customer focus is the development of systems that invite customers into the internal operations of the company to “co-create” customer value. Here, the company deliberately blurs the distinction between customer and employee in the ultimate pursuit of a customer-centric perspective to everything the organization does26.

■ The fifth area was gaining a greater understanding of customers and their needs – ability to get close to your customers.

“Great opportunity and indeed imperative for real time talking with customers.”

“Have good data on customer transactional history and the real opportunity is to look at segmenting these customers based on this data leading to modification of offerings.”

“Big change is to understand customers anywhere in the world.”

“Give customers what they want, not what you make.”

“It is more about getting on the front foot and anticipating needs of the customer.”

“Prescriptive Analytics are the next thing with Big Data – push sell rather than random.”

■ The sixth area was market expansion.

“Digital has changed the game. You now need to think the competitor is not just the guy across the road, but somewhere else in the world!”

Some participants were concerned that digital was masking the real issue, the rise of the customer and changing customer expectations. They cautioned focusing purely on the technology and forgetting about the customer!

“Technology may be a disruptor but customer behaviour is what it is about.”

“Technology changes behaviour – so need to meet behavioural shift.”

“Disruption is also a consequence of changing customer expectations: convenience for the customer is a new driver as is the need to keep up with changes in customer behaviour.”

“Technology changes behaviour and whilst technology is a disruptor, it is still our focus to understand the behaviour of the customer.”

“Digital presents the opportunity to better get to know our customers and when we can do that we can take the customers away from our competitors. That is business. Ironically, digital is providing a self-select community. I am aware of the opportunities but we started from Armageddon by not moving to digital.”

“Digital has fostered the era of self-reliance. Consumers search for anything from cars through to shirts so you need to understand that today’s customer is self-reliant and why.”

Another cautionary note expressed about becoming ‘too digitally focussed’ was that essentially digital is only one mechanism that creates change and innovation. There are many others, and hence companies should be striving more to build that culture of innovation, searching for change and ongoing improvements – digital would be a subset within this. An over emphasis on digital or a digital alone focus may leave a company open to being blindsided by a non-digital innovation or change. Similarly some questioned the lack of innovation focus at the Board level, seeing the current focus as too efficiency orientated.
Moving towards this more innovative culture is also an enabler of the 'small i' innovation highlighted above. Illustrations of this need and suggestions to address this included:

“Need a culture of constantly searching for upgrading/how to get better.”

“Way to foster innovation:
  - Bring in provocateurs to challenge and force to think laterally;
  - Wisdom from the shop floor – we are ignoring and not tapping into; and,
  - Take Directors and analysts out to the field so they understand what we do.”

“To get the best out of the changing world we need a culture in organisations to be fostered that is:
  - Adaptive;
  - Agile;
  - Receptive to change; and,
  - Innovative.”

Leaders create the culture in organisations, and they are the ones who will need to embrace and build this innovative culture. It is the need for these individuals both at Board and executive level to consider how they think, how they want their companies to think and how they are going to create the right mindset to profit from the digital age. The following comments add light to the change required.

“You need to look at it from another world. In other words, look at it from a point of view that your business has been wiped out because they didn’t move to a digital strategy. In a way the strategy should be devised from the position of the end. That is, from destruction. The problem you have is that we have a shallow pool of digital expertise and original thinking.”

“Digital has reinforced the need for future thinking. It highlights those CEOs who do or do not innovate. The role of the CEO is to create the culture of innovation to encourage those in their team and push.”

“For digital to succeed there needs to be the right mindset. That is the ongoing development of knowledge and curiosity. This is not limited to individual Directors; it has to be across the business. The Chief Executive has to recognise the risk of the future and reinforce that to the Board.”

“Logic will get you from A to B. Imagination will take you everywhere.”
Albert Einstein
Innovation

When looking at growth prospects of a company the following is one participant’s view that mirrors that of Machiavelli (“*The first method for estimating the intelligence of a ruler is to look at the men he has around him*”).

“When looking at growth, the first thing I look at is the Chief Executive and who that Chief Executive hires and surrounds themselves by. I then stand back and look at the Chairman, and who that person has on their Board, and whom they surround themselves with. If they have not hired successful people who take accountability then I have a concern. What I do see are people who are regularly staid in their thinking where business is in a state of constant change. This is not the formula for growth and success.”

Interestingly, when participants were asked about the competencies they thought leaders would need in the future they aligned with those needed to create a culture of innovation. Figure 6 shows that some of the emerging competencies required in the future are curiosity, open-mindedness, agility and an international mindset, ones that do not traditionally fit into leadership development programs or recruitment initiatives.

Comment:

Digital is without doubt causing significant challenge in the Australian marketplace while at the same time creating significant opportunities for growth. This growth is multi-faceted, ranging from low barriers to entry into overseas markets, enabling greater customer insight and closeness to the customer, transformation of existing products or business lines, efficiency, productivity of workers and product innovation, and this is only the tip of the iceberg.

The interesting point made by a number of participants was that digital and technology are only enablers of what has been a real underlying change in customer expectations and behaviour. Sure digital or technology is allowing this to happen, but it seems that the age-old saying of “the customer is king” should not be forgotten and should continue to be the primary focus.

The need to create innovative cultures in companies with lateral thinking at their core was clearly evident to achieve growth and consequently bright futures for Australian companies. How well we are doing on this task was not readily apparent, but the fact that this need was recognised was encouraging. Regarding the required competencies of future leaders to achieve this, it will be necessary for these to become more and more embedded into recruitment and selection practices and leadership development programs over time to enable growth opportunities to be identified and realised.

Figure 6: Participant Responses to the Question “What are the emerging competencies our future leaders will require to meet this fast pace of change and to take advantage of it to succeed?” (Listed and rated in terms of importance)

Note: Response numbers vary as participants may not respond or may respond to multiple competencies.