AUSTRALIA'S DIGITAL ECONOMY STRATEGY

OUR PERSPECTIVE

QUT pwc

CHAIR IN DIGITAL ECONOMY

ACKNOWLEDGMENTS

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This report was prepared by the PwC Chair in Digital Economy team based at QUT. The Chair investigates, stimulates and educates to help organisations and individuals thrive in the digital economy.

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MESSAGE FROM THE PwC CHAIR IN DIGITAL ECONOMY

Prof Marek Kowalkiewicz

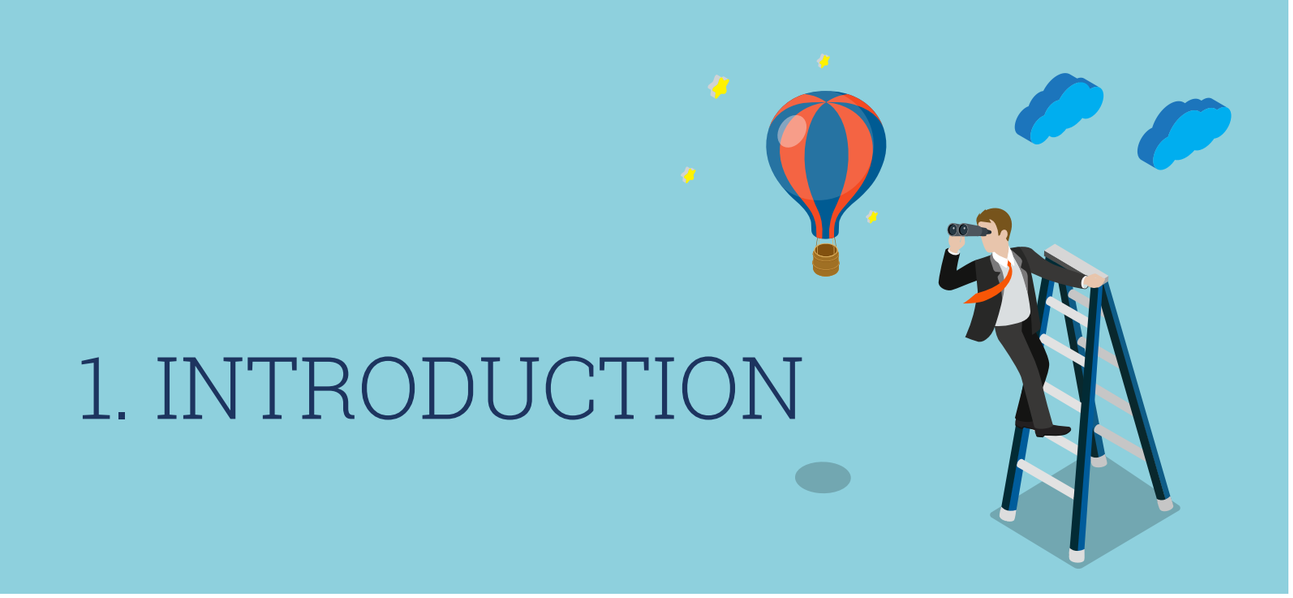
Like it or not, we live in interesting times. The digital economy is far from a speculation, far from occupying a small niche in our lives or the economy. It has penetrated every corner of the economy, changing the way we live, work, and think.

The digital economy brings a vast set of new phenomena with it. New trends in business, technology, and society are creating both challenges and opportunities. What future awaits us? Will robots really take our jobs? Will algorithms need to be managed? What new opportunities will arise for businesses and individual Australians? We need to make sure we respond to these opportunities and challenges properly and without delay, otherwise they may soon be lost or turn into threats.

The PwC Chair in Digital Economy has been exploring the phenomena of the digital economy for over two years. We have shown that investment in technology is not enough for an economy to thrive. We have identified what makes high-growth businesses successful in the digital economy. We have partnered with local and state governments in developing their digital strategies. We have joined forces with local and state governments to transform their services. We have worked with individuals, communities, and small, medium, and large enterprises to identify opportunities and threats that the digital economy brings, and to develop successful response strategies. And it is in our DNA to partner with organisations on their digital journeys to help them thrive in these new, exciting times.

While independent reports show that Australia's Digital Evolution Index is relatively high (ranking 11th out of 60 countries), our digital momentum is very low (53rd out of 60). It is time for Australia to regain its digital momentum. The government's role in this process is unquestionable. We hope this report draws a clear picture of the next steps required.

Prof Marek Kowalkiewicz
Head of PwC Chair in Digital Economy



1. INTRODUCTION

Advances in business, technology and society are revolutionising the way we **live, work, think and learn**. In this new era, governments must move beyond the traditional provision of services, regulatory functions and funding initiatives, to become a **facilitator, advocator, and partner**.

LIVE WORK THINK LEARN

BUSINESS TECHNOLOGY SOCIETY

The digital economy is not new; it has been around for almost 20 years. While there is a plethora of definitions of the digital economy, we offer here our own perspective:

The digital economy entails the dynamic, digital phenomena that radically change the way we work, live, and think.

Unlike many others, our definition of the digital economy is focused on people and organisations, not on technology. The dynamic, digital phenomena we refer to can be grouped into technology, social, and business trends. Therefore, the digital economy is enabling people and organisations to radically change the nature of business (the way we work), social norms (the way we live), and mindsets (the way we think) through the introduction and proliferation of new technologies, business models, and social trends.

A national digital economy strategy needs to be people- and organisation-centric. It needs to be owned by people, and not forced on them. The vision of the digital economy should be embedded in Australia's traditions of quality of life, empowerment, and prosperity. A digital strategy should be a dynamic manifesto of the country's long-term digital future.

The role of government in the digital economy changes. Significant shifts are underway in the labour markets as well as the goods and services markets. New regulatory issues are emerging, and government needs to foster the competitiveness of Australian-owned businesses and their ability to thrive in the global digital economy. Currently, Australia has a low stake in the global platform economy, which means that very little share in the gains and control over the associated economic activities is in our hands. These shifts might have huge implications for government revenue models and wealth redistribution patterns. Government may need to re-imagine the services it provides. In the new economy, government will no longer be the only provider of public services in a country's geography – many such services will be provided by global platforms.

An effective digital strategy is not a static document. It should be feeling the pulse of the economy and capturing its digital signals in real time. It should improve stakeholder engagement and identify ways to make service delivery frictionless by designing barriers out, and it should help organisations to embrace end-user trends and new opportunities in the digital economy. Most importantly, it should be a living strategy, reviewed and updated frequently to accommodate rapid changes.

We identified specific challenges to be addressed through a clear and coherent digital strategy for Australia. These are: (1) connectivity; the roles of (2) trust and (3) confidence; (4) skills in the digital economy; and (5) creating conditions to sustain the growth of small and medium enterprises (SMEs).

Here, we articulate eleven recommendations for Australia's digital economy strategy, and follow with some brief discussions of each.

2. RECOMMENDATIONS

RIGHT APPROACH

Recommendation 1: Focus on a long-term purpose of the digital strategy, embedded in Australia's tradition of quality, empowerment, and prosperity.

Recommendation 2: Provide a clear roadmap for digitisation and digitalisation strategies.

Recommendation 3: Develop an agile strategy capable of accommodating new trends.

Recommendation 4: Develop strong environmental sensing capabilities (technological, business, and social).

SOLVING THE RIGHT PROBLEMS

Recommendation 5: Provide a roadmap for internet connectivity at an affordable price.

Recommendation 6: Incentivise deviance-led innovation to challenge the existing models in the economy.

Recommendation 7: Raise awareness of cybersecurity agenda through facilitated conversations and strategic investment. *Share* best practice across Australia.

Recommendation 8: Prepare Australians for digitalisation (not just for learning new technologies).

Recommendation 9: Build business confidence, provide incentives that reduce the cost of doing business, and help businesses to enable the talent, knowledge, and skills for developing strong firms.

RIGHT ROLE

Recommendation 10: Shift the role of government from provider, funder, and regulator to facilitator and partner.

Recommendation 11: develop proactive government capabilities.

3. RIGHT APPROACH

RECOMMENDATION 1: FOCUS ON A LONG-TERM PURPOSE OF THE DIGITAL STRATEGY, EMBEDDED IN AUSTRALIA'S TRADITION OF QUALITY, EMPOWERMENT, AND PROSPERITY.

The pace and prevalence of digital technologies is changing almost everything about the way we live, work, and think. To help us in this ever-changing environment, we need to keep our focus on a purpose. A purpose is a way finder in a turbulent context. It refers to a long-term goal, an ultimate reference point of success. Australia's economy is based on a number of founding principles: hard work in a traditionally hostile environment; small- and medium-sized economic entities; and a particular taste for discovery, innovation, and multiculturalism. The purpose guiding Australia's digital economy should be embedded in the country's values, traditions, and culture; it should project the country into the future, while preserving its historical foundations.

In the past two years, the PwC Chair in Digital Economy has helped organisations and government agencies frame their digital purpose. As an example, the Chair contributed to Digital Brisbane 2.0, which defines Brisbane's digital purpose as:

empowering residents and businesses to thrive in the digitally enabled, globally connected world.

Australia, as a country and continent, has a rich history of equality, empowerment, and prosperity. The Magna Carta, which was introduced in the thirteenth century and later diffused across the Commonwealth countries, intensifies equality and empowerment for all citizens of Australia. The essence of the Magna Carta, that is, rule of law and good governance, remains relevant in the digital age.

We believe Australia's Digital Purpose should be to empower all Australians to thrive in the global digital economy.

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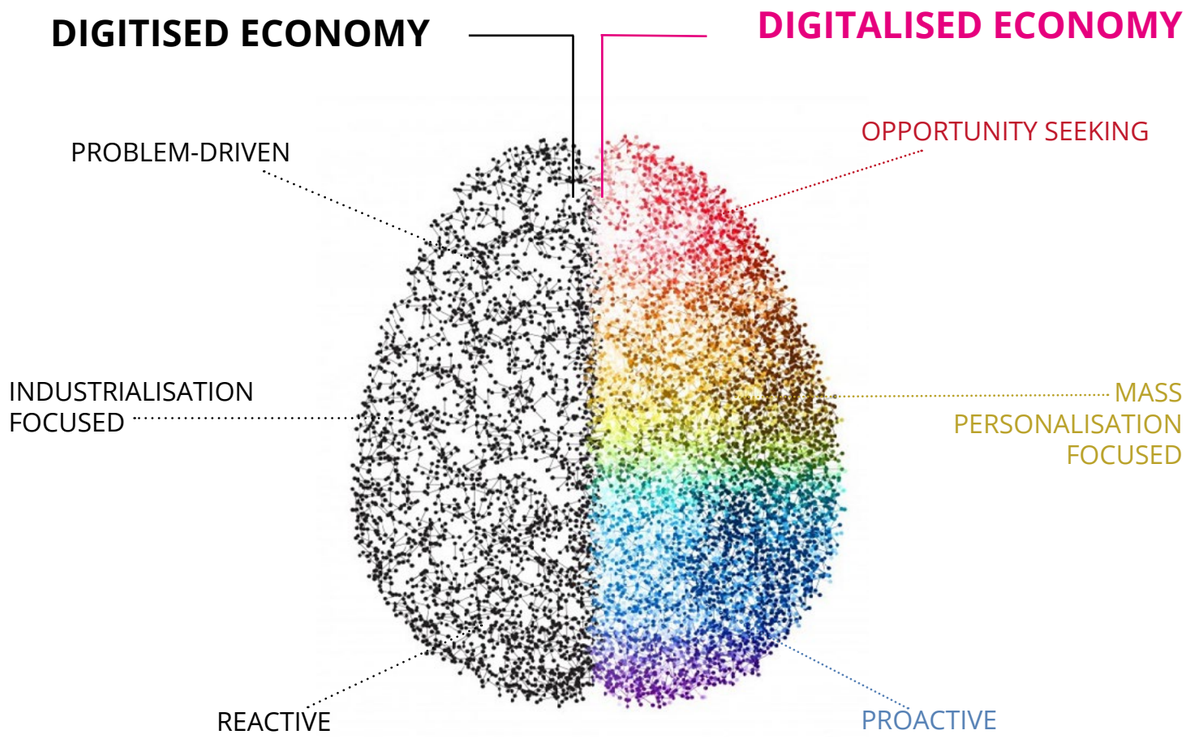
FOLLOW-UP MATERIALS:
The Digital Week | Digital Human Rights
Digital Brisbane 2.0 – an example of a Digital Strategy with a strong focus on purpose
The Digital Week | Digital Brisbane 2.0

RECOMMENDATION 2: PROVIDE A CLEAR ROADMAP FOR DIGITISATION AND DIGITALISATION STRATEGIES.

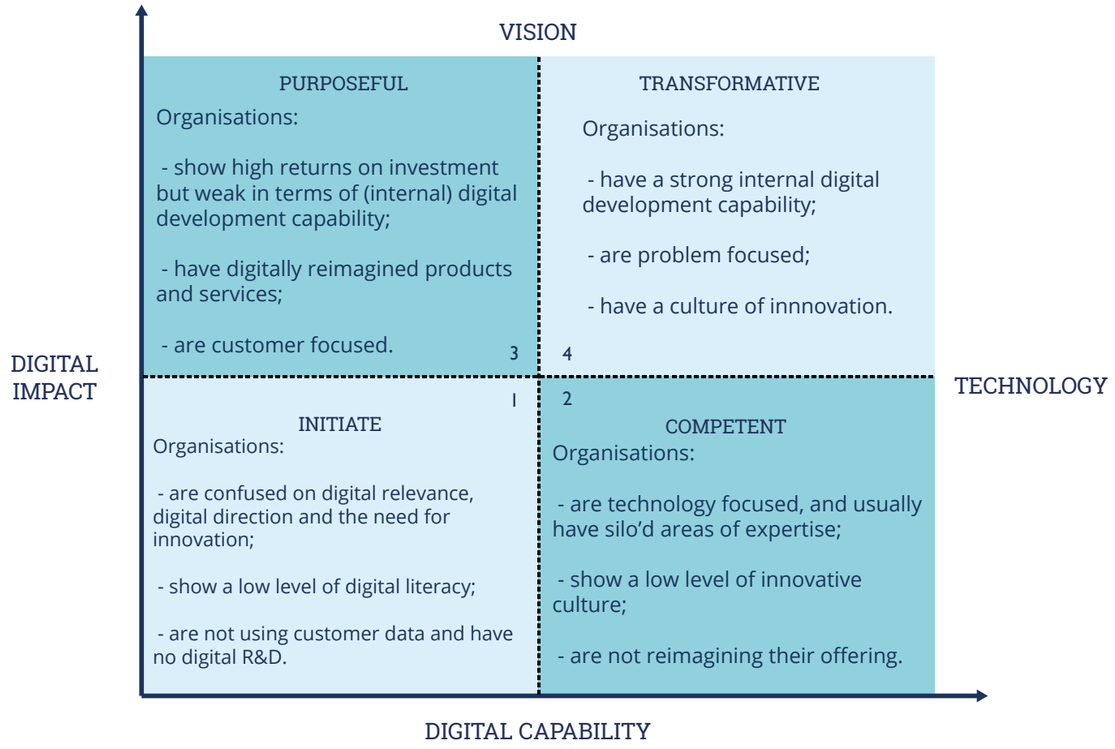
The digital economy is not just about technologies. There are two facets of the digital economy: the digitised economy and the digitalised economy. The digitised economy refers to new technologies enabling automation and optimisation of existing processes, for example, turning paper forms into online ones or transforming cash exchange into an online transaction. The digitalised economy refers to a more radical transformation, the evolution of new business models and ways of working that enable the innovation and change that are made possible through the introduction of new technologies.



According to our research, investment in technology is not enough to make sure that communities, businesses, and individuals thrive in the digital economy. New ways of thinking are required. Technology is just an enabler. Successful economies, rather than following a standard, "industrialisation", curve, create a new curve. If Australia is about to benefit from the digital revolution, it needs to focus on new ways of thinking, in addition to being focused on technology.

What makes up digitisation and digitalisation processes? Our recent work on the digital maturity of organisations discusses some of the constituents of these through the lens of digital maturity. The digital maturity model consists of six Digital Capability Indicators and seven Digital Impact Indicators. The *Digital Capability* Indicators in this model are synonymous with those of digitisation, and measure the strength of the organisation's digital foundation. This includes physical technology infrastructure as well as organisational, managerial, and human resources capabilities. The *Digital Impact* Indicators are more like the digitalisation indicators, and measure how digital technologies are leveraged to respond to consumer demand and changes in the environment through improved or new product and service offerings. They include organisational vision, transformative culture, shared values, business agility, and revenue resilience.

DIGITAL MATURITY MODEL



Our distinction between digitisation and digitalisation also applies to innovation. Traditional business models focus on the adoption, diffusion, implementation, acceptance, and assimilation of technology in organisations. This digitised innovation is technology-focused, and sees technology as a necessity to achieve innovation (technology-led innovation). Conversely, innovative business models focus on producing new value by creating unexplored markets ("blue ocean strategy"), by focusing on unspoken customer needs ("jobs to be done") or by leveraging the potential of "network effects". This digitalised innovation is value-focused, and sees technology as one of the enablers of innovation (together with cultural shift, institutional support, etc.) (value- or purpose-led innovation). To focus only on digitised innovation (technology-led innovation) carries a risk that digital strategies will miss out on the most important aspect of digital: its impact potential.

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FOLLOW-UP MATERIALS:

Technology Investment is Not Enough: Growing Australia's Productive Digital Economy

The transformational difference between digitisation and digitalisation

The Digital Week | Are you digitising or digitalising?

Businesses need to get smarter when investing in tech

Digital Business: Towards a value-centric maturity model - Part A

Digital Business: Towards a value centric maturity model - Part B

RECOMMENDATION 3: DEVELOP AN AGILE STRATEGY CAPABLE OF ACCOMMODATING NEW TRENDS.

The concept of digital strategy has been imagined and re-imagined multiple times. Debate continues about what a digital strategy truly is. In our previous research on digital strategies, we found four waves in their evolution.

The first wave of digital strategies focuses mainly on automation. In this stage, organisations focus on the transition of non-IT organisational assets and artefacts, such as documents and processes, into IT systems. A further, incremental development is the acknowledgement that everything in the organisation could be digitised, not just back-end systems like databases and enterprise resource planning. More a tactic than a true strategy, this phase is about optimising existing corporate strategies via digitally enabled execution and economies of scale. At the national level, first-wave digital strategies would focus solely on technology, communications networks, and helping citizens and organisations to automate their processes.

The second wave of digital business strategy focuses on interaction with customers. These digital strategies recognise that the next frontier is to digitise interactions with the ecosystem, but also – importantly – to identify opportunities, especially new ways of reaching out to customers: thus, the emergence of e-commerce, e-government, and the design of entire new digital channels. Such digital

strategies require stronger customer engagement and only become possible with correspondingly increased digital literacy in the customer base. At the national level, second-wave digital strategies would focus, in addition to aspects covered in the previous paragraph, on the presence of businesses and individuals online, facilitating e-commerce and other online transactions.

The third wave of digital business strategy is enabled by the capacity of new business models. In this stage, a digital business differentiates itself by enabling entirely new qualities of products and services to emerge from the holistic consideration of digital opportunities, and then leveraging them within the components of a business model. This third wave of digital strategies elevates siloed sub-strategies to the top. At the national level, third-wave digital strategies would, in addition to the previously mentioned focal points, facilitate opportunities to create completely new business models, and realise radical (non-incremental) benefits from new technologies and social trends. Such national digital strategies would leverage the power of platform economies, sharing economies, and other transformational trends.

The final wave of the digital business strategies is about the ability of organisations to translate strategy into actions. Currently, most strategies are static in nature, updated annually or even less frequently. As a consequence, the costs incurred and time taken for strategising are high and reliability often low. We expect that the digital strategies of the future, rather than being static descriptions of an intended future state, will be prescriptive mechanisms that provide continuous information about intended future states of the organisation by recognising and adapting to change. Such a stage of digital strategies will be adaptable, and also resilient. There is merit to such strategies having a significant lifespan and stability, as they will provide both short-run and long-lasting direction to the economy. At the national level, such fourth-wave digital strategies would be continuously evolving, and responding dynamically (in real time) to the changing global environment.

To sum up, the digital age brings new strategic choices. However, if a strategy is static, there is a risk that the assumptions underlying it will be eroded by new technology, business, and social trends. Therefore, government needs to establish a culture, for itself and the economic agents in the economy, to undertake more frequent, if not continuous, processes of strategy improvement. A strategy receptive to digital developments needs to be agile enough to accommodate new options.

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FOLLOW-UP MATERIALS:

Digital Strategy of the Future

The Digital Week | Digital Strategy of the Future

RECOMMENDATION 4: DEVELOP STRONG ENVIRONMENTAL SENSING CAPABILITIES (TECHNOLOGY, BUSINESS, AND SOCIAL).

The digital economy is not just about technology. It encompasses new trends in technology, business, and society. To thrive in the digital economy, it is important to improve awareness of all these trends as well as to comprehend, execute, and reflect on such trends. The PwC Chair in Digital Economy constantly monitors new trends in the Australian digital economy and disseminates them with the wider community through regular podcasts, publications, training, and events. We believe that the role of government is to ensure Australians and Australian organisations have access to such continuous environmental scanning to help reduce uncertainty among businesses. This could be achieved by either providing the service directly, or working with the business community and industry organisations to create conditions where such environmental services are provided to others by businesses themselves.

For instance, our recent survey identified the technology, business, and social trends in SMEs in Queensland. According to the survey, the current five most-used technologies in SME environments are: cloud-based solutions, digital technology platforms, high-speed wireless internet, business intelligence, and intelligent apps. The technologies with the highest potential for use in the next two years will be: business intelligence, adaptive security architecture, augmented reality, open data infrastructure, artificial intelligence, and machine learning. The technologies with the highest potential for use in the next three to five years will be: virtual reality, energy storage, perovskite solar cells (high-efficiency solar power cells), blockchain, and adaptive security architecture.

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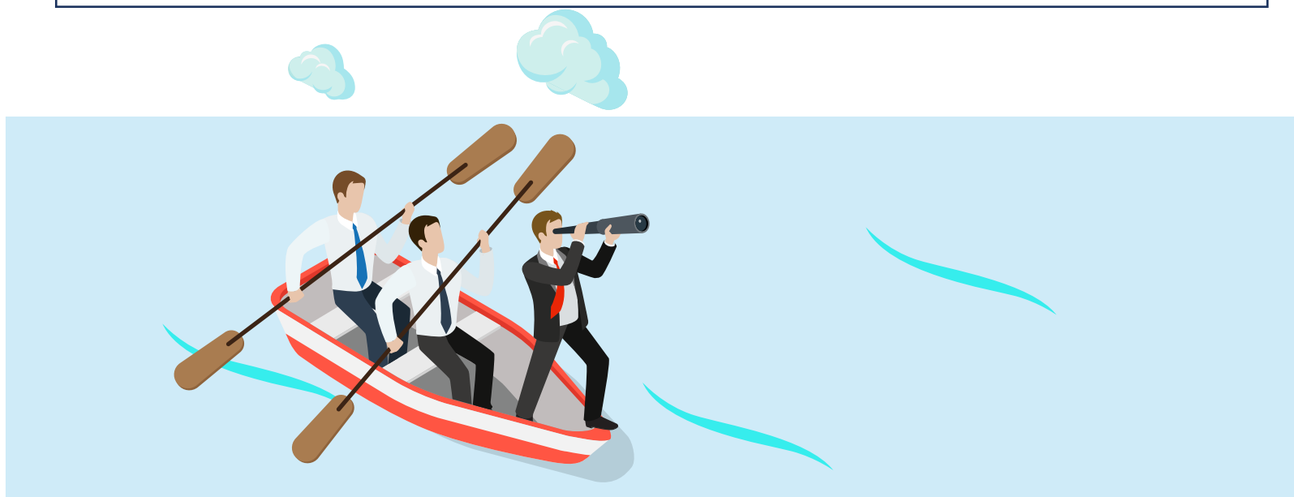
FOLLOW-UP MATERIALS:

The Digital Week | Environmental Sensing

Environmental Sensing: Technology, Business and Social Shaping the Queensland Economy - Part A

Environmental Sensing: Technology, Business and Social Trends Shaping the Queensland Economy - Bart B

The Future of Compulsory Third Party Insurance in Queensland



4. SOLVING THE RIGHT PROBLEMS

The greatest test for the digital economy is to overcome uncertainty. There is uncertainty in what technological advancements will be successful; uncertainty in the rate of cultural change around the ways in which we live, work, play, and grow as a society; and uncertainty in how individuals, businesses, and governments can capture and secure trust and confidence in each other.

In considering uncertainty, we have identified three specific challenges that characterise the digital economy: one technological challenge (connectivity) and two challenges that refer to the role of trust and confidence in the digital economy (deviance and cybersecurity).

On the one hand, connectivity is a specific challenge that underpins the rate of technological advancement and cultural change in society. Connectivity is a sine qua non for Australia to remain competitive in the digital economy. On the other hand, trust and confidence are essential elements of the digital economy. Trust and confidence reflect our perceptions of how secure our personal and business information is, and how sure we feel that others in the digital economy will use our information with integrity. The following subsections discuss the challenges of connectivity, deviance, and cybersecurity in the digital economy.

4.1 A Technological Issue: Connectivity

RECOMMENDATION 5: PROVIDE A ROADMAP FOR INTERNET CONNECTIVITY AT AN AFFORDABLE PRICE.

Internet connectivity and speed remain a key concern for the Australian economy, especially for businesses and households in rural and regional areas. Our team has been talking with hundreds and thousands of businesses, industry leaders, and citizens around Australia and a major concern is the speed of internet connectivity, which is currently very poor in many areas. We quote below a business owner we interviewed recently:

… we pay ridiculous money to make sure that our phones run smoothly and our internet runs fast. I don't really know a lot about the NBN, but it's funny … We were driving up on the Sunshine Coast and my grandma's farm, which is vacant on ten acres, has got a post out the front saying "NBN installed". There's no house on the farm. There's nothing. Yet we're in the middle of the city and we've got nothing! Obviously, there's different rollouts of the NBN and everything like that, but you look at that sign and go, "Why?" We're on a dirt road in the middle of nowhere and there's NBN support. What's happening?

An important characteristic of the digital economy is that it is mobile and it removes the physical address of a business. Therefore, the economy will see a higher penetration of high-speed mobile internet services at an affordable cost. A survey conducted in the Western Downs Region of Queensland indicates that about 38% of businesses there rely on wireless/satellite internet as their main connection. The mobility of small businesses is in the nature of regional business, and the government needs to provision connectivity immediately.

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FOLLOW-UP MATERIALS:
High Growth and Technology: High Growth Firms in the Digital Economy

4.2 Trust and Confidence: Deviance

RECOMMENDATION 6: INCENTIVISE DEVIANCE-LED INNOVATION TO CHALLENGE THE EXISTING MODELS IN THE ECONOMY.

Deviant behaviour is any behaviour that violates the law or organisational policy, or challenges social norms. Sometimes, deviance is negative, causing significant harm to government, business, or society. Negative deviant behaviour in the digital economy can take any traditional deviant behaviour (e.g., harassment, theft, fraud) and scale it online. A critical goal for businesses and policymakers is to find ways to design out deviance. For example, removing the customer from the payment process means there is no opportunity to misrepresent what is being paid for or to avoid payment outright. Beyond business-level initiatives, the digital strategy must support regulatory changes that enable services to be proactively delivered

by governments to reduce instances of unintentional deviance. Examples of this are citizens not paying taxes on time because notices are sent via postal mail to old addresses, or because payment cannot be made via a preferred payment type. Removing the opportunity for deviance, or designing processes for passive compliance, is a key success factor in the digital economy.

Beyond negative deviant behaviour is positive deviance that drives innovation and cultural change. The digital economy is already observing a significant amount of deviance-led innovation: innovations that challenge existing markets or regulatory systems. For example, car-sharing apps, streaming services, and peer-to-peer banking all disrupted traditional business models, requiring existing businesses to reactively respond to changes in the marketplace and potentially even changing their value proposition to retain customers. To date, governments have been reactive when responding to inflexible policy constraints. The key lesson here for a digital strategy of the future is: You cannot regulate your way out of disruption. A digital strategy that implores all levels of government to engage in environmental sensing is a strategy that will empower government to pre-empt disruption and proactively respond. Governments can prepare minimum viable policies reflective of environmental sensing and scenario planning to ensure that they are, themselves, resilient to regulatory disruption.

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FOLLOW-UP MATERIALS:
The Digital Week | Consumer Deviance
When 'it's wrong, don't do it' doesn't work

4.3 TRUST AND CONFIDENCE: CYBERSECURITY

RECOMMENDATION 7: RAISE AWARENESS OF CYBERSECURITY AGENDA THROUGH FACILITATED CONVERSATIONS AND STRATEGIC INVESTMENT. SHARE BEST PRACTICE ACROSS AUSTRALIA.

Cybersecurity plays a role in addressing the challenge of trust and confidence. The World Economic Forum has ranked data fraud or theft and cyberattacks fifth and sixth out of the 10 most likely global risks. To understand cyber-risks, we propose the following three perspectives of analysis.

Individuals
From both an attacker and a defender's perspective, the number of challenges that the "white hats" (the defenders) have to face seems endless. Hackers literally dictate research and development in cybersecurity, as they seem to always be a step ahead. The defenders operate under undeniable time constraints and under the pressures of senior managers who, traditionally, do not understand cybersecurity. Further, the white hats have the strenuous task in organisations of helping to educate masses of employees who, for the most part, struggle to understand the implications of their digital behaviours. At the individual level, awareness around cyber-risks should be increased, and white hats should be provided with further incentives to contrast the limitations (available budget, salary, recognition, etc.) typical of their role.

Organisations and Platforms
Almost all of the personal information exchanged on the internet is there through the services of private or public organisations or platforms (a video uploaded on YouTube, bank account details shared on the website of a public agency, etc.). As a consequence, personal information and identity management (and protection) are largely organisational tasks. The constraints in this field are several: limited budgets and resources (e.g., a labour market in which the demand for white hats largely exceeds the offer); a traditional reticence towards investing in risk management (a phenomenon we described in a recent article); boards of directors that do not seem to fully understand the implications of cyber breaches (Delta Risk, 2016); a market for cybersecurity solutions in which vendors have the strategic advantage of owning technical knowledge that organisations are not capable of developing themselves; and so on. In this complex scenario, more collaboration is recommended (e.g., AusCERT).

Government
Australia is doing a lot to catch up with the rest of the world in terms of cybersecurity policies. In 2016, the Australian Government announced Australia's Cyber Security Strategy (now recently updated), an overarching framework intended to lay the foundations for effective cybersecurity across the country. Australia will reach a fundamental milestone in February 2018, when the Notifiable Data Breaches Scheme will enter into force (despite some question marks on its effectiveness). Besides the legislative instruments, the Australian Government as well as the state governments are making significant investments in cybersecurity. However, the numerous initiatives sponsored by the government (Cooperative Research Centres, Joint Cybersecurity Centres, the Cyber Security Growth Network, etc.) risk dispersing resources excessively, and more integration is necessary.

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FOLLOW-UP MATERIALS:
Risk Management Revolution
The Dilemma of Research in Cybersecurity Management

4.4 RESKILLING WORKFORCES TO ENABLE DIGITAL STRATEGY

RECOMMENDATION 8: PREPARE AUSTRALIANS FOR DIGITALISATION (NOT JUST FOR LEARNING NEW TECHNOLOGIES).

A proactive digital strategy must respond to the impact of technology, business, and societal trends on the future of work and skills. Both workers and workforces will require reskilling for an increasingly digitalised future. Despite the significant emphasis on STEM skills over recent years, demand will remain for people with highly developed soft skills. STEM skills for humans are important; however, we recognise that technologies are able to do STEM, particularly in areas that are routine, like mathematics, and more easily automated. As such, humans will need to differentiate themselves from technologies and develop non-routine skills like cognitive thinking, creativity, and social and emotional skills. Turning digital strategy into action will also require skills and knowledge for innovation

and entrepreneurship. At present, these abilities are not mainstream and nor are they well understood or broadly valued within organisations. They require new ways of thinking and doing business designed around customer needs and expectations.

Digital strategy can provide flexible options for how and when work is performed. The ability of workforces to pivot when new opportunities arise is a feature of flexible digital strategy. To enable this agility, organisations need short, bundled learning packages to "top up" the knowledge and skills of workers. Both public and private sector managers will need to learn new skills to lead and manage on-demand workforces, with contractors geographically isolated and working through online platforms. While these new working models offer some increased flexibility and efficiencies, there are growing concerns about the number of people who are underemployed. For these reasons, a digital strategy must also account for emerging inequities among low-, middle- and high-skilled workers resulting from the digital economy.

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FOLLOW-UP MATERIALS:

The Digital Week | Evolution of Employment
The Digital Week | The Big Wave of Job Creation
The Digital Week | Digital Intelligence
Big wave of massive job creation heading our way
Work: the future is already here
What do startups have to do with the future of work?

4.5 ENABLING CONDITIONS TO SUSTAIN GROWTH OF SMES

RECOMMENDATION 9: BUILD BUSINESS CONFIDENCE, PROVIDE INCENTIVES THAT REDUCE THE COST OF DOING BUSINESS, AND HELP BUSINESSES TO ENABLE THE TALENT, KNOWLEDGE, AND SKILLS FOR DEVELOPING STRONG FIRMS.

Not all firms that survive grow. In Australia, there were 2,171,544 actively trading firms in June 2016; the majority (99%) were SMEs employing less than 200 people. While the net entry rate (entries minus exits) of firms increased in the past three years (2014 to 2016), many SMEs struggle to grow. According to data by business size, the industry value added by small businesses (employing fewer than 20 people) in all sectors declined by an average rate of 0.62% in 2015–16 from the previous year. During the same period, the value added to industry by medium-sized (employing 20 to 199 people) and large (employing more than 200 people) businesses increased by 2.18% and 6.52%, respectively. SMEs are disadvantaged in terms of growth momentum and measures are required to reduce the divide.

The PwC Chair in Digital Economy has been exploring the issue from a digital economy perspective over the past two years. Our research has provided a set of recommendations for high, technology-enabled, growth of SMEs. According to our research, firms experience superior performance not simply because

of investing in technology; rather, superior performance results from a unique combination of technical and qualitative factors, such as managerial expertise, digital capabilities, and having a deep understanding of customer motivations. We found that successful firms in the digital economy emphasise understanding customer "pain" and creating innovative solutions to relieve that pain. Owners and managers of the businesses surveyed identified broad areas where the government can play a great role:

- Building confidence through bringing people together to share stories of success with others
- Providing incentives that reduce the cost of doing business
- Enabling talent with the knowledge, skills, and ability to build strong firms, manage effectively, and help others to achieve success.

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FOLLOW-UP MATERIALS:

High Growth And Technology: High growth firms in the digital economy Part A
High Growth And Technology: High Growth Firms in the Digital Economy Par B
Businesses need to get smarter when investing in tech

5. PLAYING THE RIGHT ROLE

RECOMMENDATION 10: SHIFT THE ROLE OF GOVERNMENT FROM PROVIDER, FUNDER, AND REGULATOR TO FACILITATOR AND PARTNER.

The role of government in the digital economy is changing. In the new economy, government will no longer be the only provider of public services in a country's geography, with many such services provided by global platforms. A digital economy completely ignores geographical boundaries, and many services that governments used to provide in the traditional economy will become redundant in the next decade. For example, Facebook provides the platform to connect digitally, irrespective of geographical location. Participants in the digital economy join platforms and can also fund their projects from the crowd (e.g., Kickstarter, Circle Up). Government is no longer the gatekeeper of innovation, and innovation happens on global platforms. All of these changes mean that government becomes mainly an intermediary to bridge the gap between suppliers and demanders of the services. The dominant role of government is to bring together stakeholders from national and global, public and private, profit and non-profit, academia and civil society, to create multi-stakeholder partnerships to achieve the goals of the digital economy.

The Digital Economy Strategy of Australia should outline the roles the government should play in the digital economy. In addition to being a funder of initiatives, regulator, and provider of services, the government should consider being a facilitator, advocate, and partner in the digital economy ecosystems.

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FOLLOW-UP MATERIALS:

The Digital Week | Role of government in the digital economy

Digital Dialogue | Rethinking Regulation in the Sharing Economy

RECOMMENDATION 11: DEVELOP PROACTIVE GOVERNMENT CAPABILITIES.

PROACTIVE SERVICE DELIVERY

Successful businesses are increasingly focusing on lowering service latency—shortening the time it takes to deliver a service from the moment it is requested. Some businesses are even able to deliver services proactively—even before they are requested.

In the digital age, customers often expect service provides to be proactive, and suggest relevant products or services even before they themselves request them. And while customers are getting used to such service standards in business world, they are increasingly transferring their expectations, shaped by commercial service providers, onto government services.
The demanding customer is also a demanding citizen, expecting the government to be proactive. No longer does a citizen or a business want to actively apply for a service. They expect many of them to be delivered even without an explicit request.

In many cases this translates to great time savings for businesses and individuals, time that they can now spend on growing their operations or other activities contributing to the wellbeing of the nation. This seemingly internal focus on government operations can help the economy grow in the digital age.

Governments typically know quite a lot about citizens and their businesses, and could use this information to predict the so called life events. This, in turn, can help the governments lower service latency (the time it takes to deliver as service), to make the public services more compelling and, as discussed above, allow recipients of these services to spend time on other activities.

While proper data sharing frameworks (even for sharing data across government departments) may need to be developed, we are expecting such proactive services to decrease costs of service delivery and, in some cases, act as preventative tools.

Our team has created a number of services that follow the proactive principle.

Importantly, the notion of proactive delivery of public services is fully aligned with the approach to reimagine the roles of the government. While having access to the data, the government may orchestrate delivery of public services by other entities, triggering the delivery where and when needed.

Such proactive services could be treated as advanced, optional, versions of public services. They could also become the standard way of delivery of services, while allowing citizens and businesses to opt-out, should they prefer to.

The government should continue transition of government services to proactive ones and share experience and expertise - as an exemplar - with small and medium businesses.

PROACTIVE GOVERNANCE

One of the challenges in the digital economy is the slow response time of governments to new trends that are not properly regulated (when there's a need for them to be regulated).

In the digital economy it is relatively common that industrial-age regulation is not appropriately addressing certain cases, which may lead to creating unfair situations, where—for instance— service providers in the same industry are being treated differently, despite the original intentions of law makers. It could also lead to situations where simply it is hard to apply existing legal frameworks (for instance, it is unclear whether incidents involving self driving cars fall under personal or product liability).

Proactive governance is an approach by governments where potential such legislative challenges are anticipated and addressed ahead of their actual occurrence.

The goal of proactive governance is to minimise legislative latency, often a headache of law-makers. In Australia we saw examples where it took governments more than several months, and sometimes years, to respond to challenges brought by the digital economy.

One approach to minimising legislative latency is to create legislative sandboxes, where implications and consequences of new trends in business, technology, and society can be tested. In an ideal case, these sandboxes should be continuously testing impact of trends, including those that are only just emerging globally.

Such legislative sandboxes should be driven by government teams, often referred to as tiger teams. An ideal tiger team is trans-departmental, and spanning multiple levels of government, to ensure that the wholistic view of an impact of a trend is created. Some governments have already started implementation of such teams in particular sub-areas of the government. For instance, Queensland Government has recently launched the Better Regulation Taskforce.

A bonus consequence of tiger teams in government, is improving organisational culture and collaboration between and across governments. This improvement itself, thanks to an established and well working team, may lead to lowering legislative latency, even for legislative challenges not predicted ahead of time.

The government should set up a digital economy legislation tiger team, spanning departments and multiple levels of the government.

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The Digital Week | Proactive Government
Emergency Communication Centre of the Future: From Reactive to Proactive

6. FINAL THOUGHTS

The digital economy is not a spectator sport: we cannot just sit and enjoy the world around us. We need to make sure that the relative advantage of Australia's digital evolution is at least maintained, and ideally further developed.

The federal government has a crucial role in creating and maintaining conditions for the growth of the economy. Playing the right role, the right approach, and identifying the right problems to solve, should be on the government's mind.

With the right attitude and passion, we can jointly ensure Australia becomes the global beacon of progress in the digital economy.

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