

Forging Our Digital Future 2018

A response to the 2017 Australian Government Paper:
"The Digital Economy: Opening Up the Conversation"



Maxsum Consulting

Enabling Opportunity, Realising Potential.

Strategic Business Technology Consulting & Solutions

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Executive Summary

Welcome to our 2018 Maxsum Whitepaper *Forging Our Digital Future*. This whitepaper has been prepared with a bit of a difference. Maxsum has taken the opportunity to respond to the Australian Government's call for feedback on the 2017 government paper *The Digital Economy: Opening Up the Conversation**.

The purpose of the Australian Government paper was to address the idea that although digital technologies have immense potential to drive competition, innovation and productivity, Australian businesses have not been fast adopters of technology by international standards.

The Australian Government has now acknowledged that "the rest of the world will not wait for us" and has called on Australians to help the government identify the key issues, challenges and opportunities and to develop a digital strategy to move forward.

The government's *Opening Up the Conversation* paper sets out the current state-of-play in Australia's digital technology landscape as informed by preliminary community discussions and then poses a series of 20 or so questions on which they seek feedback from both everyday Australians and the business community.

Maxsum has embraced the opportunity to be part of this discussion and relishes the opportunity to contribute to planning for Australia's digital future.

We believe we are uniquely positioned to give some insightful

responses to many of the questions raised in the government paper. Maxsum, founded in Bendigo Regional Victoria, today services offices and clients across both regional and metro Australia. This puts us in a unique position to be able to identify and dissect not only the common challenges faced in our market – the Australian small-to medium-sized enterprise – but also those challenges that are more specific to either metro or regional settings.

In this light, we have chosen to respond specifically to those questions and topics cited in the government paper that impact most significantly on Australian SMEs. Our responses look at how disruptive technologies and recent business technology advances have impacted on the Australian SME, what our vision for SMEs in the Australian digital economy looks like, what we see as future game-changing technologies in the SME space, and the challenges SMEs face on the regulatory, standards and cybersecurity fronts.

Of particular focus in our response is our expansion on the notion of Australia's *'digital divide'*. This term is most often used in discussions about inclusion, access and availability of technology for all Australians. This is indeed a critical challenge for our economy going forward. Yet from our perspective in working with SMEs looking to embark on digital transformation, we also see an urgent need to address the *'digital disconnect'* experienced in many small businesses. The disconnect we see is that the *promise* and the *vision* of digital transformation is simply out-of-reach for many SMEs.

The *reality* is that time, resource, and skills constraints mean that many SMEs still struggle with the adoption and use of current technologies, with little capacity or appetite to even consider new strategic business technology investments to remain competitive in the future digital economy.

Addressing this *digital disconnect* is something that we are passionate about at Maxsum. It drives our vision of *Enabling Opportunity, Realising Potential*, our own strategy and that which we bring to our Australian SME clients. We hope you enjoy our insights on *Forging Our Digital Future* and welcome any comment, feedback or discussion you might like to add.



Joe Ciancio
Managing Director
Maxsum Consulting

*A copy of the Australian Government paper *The Digital Economy: Opening Up the Conversation* is available at: <https://www.industry.gov.au/innovation/Digital-Economy/Documents/Digital-Economy-Strategy-Consultation-Paper.pdf>

How are advances in digital technology changing the way we work, our industry and our business community?

Two major business technology shifts over the last five years in particular have dramatically changed the way most people across a broad range of industries work today: The adoption of cloud services and the increasing use of mobile devices.

This has caused a dual disruption: Firstly, in the way people work and their expectations for seamless and available business technology performance, and secondly, in the way that IT service providers themselves have had to adapt and transition their operations and business models to cater to these emergent client needs. And simultaneously supporting these major technology shifts has been Australia's welcome but none-too-smooth NBN roll-out.

The adoption of cloud services

As businesses have moved part of their operations to the cloud, this has in many cases drastically reduced their hardware and onsite service requirements business side. While this aspect of cloud service adoption has been discussed widely across industries, what is only now starting to gain traction is the understanding that a move to the cloud necessitates other, new forms of soft expertise and investment from the business and their technology provider. Businesses are realizing that moving to the cloud is not a set-and-forget proposition, and keeping pace with the constant onslaught of change and innovation requires highly agile, responsive and strategic IT service provision.

Increasing use of mobile devices

In sync with cloud developments, mobile device and smartphone use approaches saturation point. This has propelled people's fast and furious transition to using, and relying, on apps to achieve basic life, work, finance and communication tasks quickly and easily on the go. These same users, by now adept experts on making their life run smoothly on the go, then brought these devices to the workplace, and demanded the same levels of seamless functionality and ease for work tasks, sparking the cloud-driven boom in business app culture that has followed. While the security factor is paramount in both the personal and work contexts, the Bring Your Own Device (BYOD) and business app culture has presented particular challenges for both businesses and the IT service providers that support them from data security, accessibility and availability perspectives. Both sides have needed to explore how users actually want to perform tasks, share data and files, and work collaboratively; and then build both the necessary freedom and controls into business processes, data privacy, cybersecurity and sensitive file sharing in a very delicate balancing act.



IT: Getting A Seat at the Table.

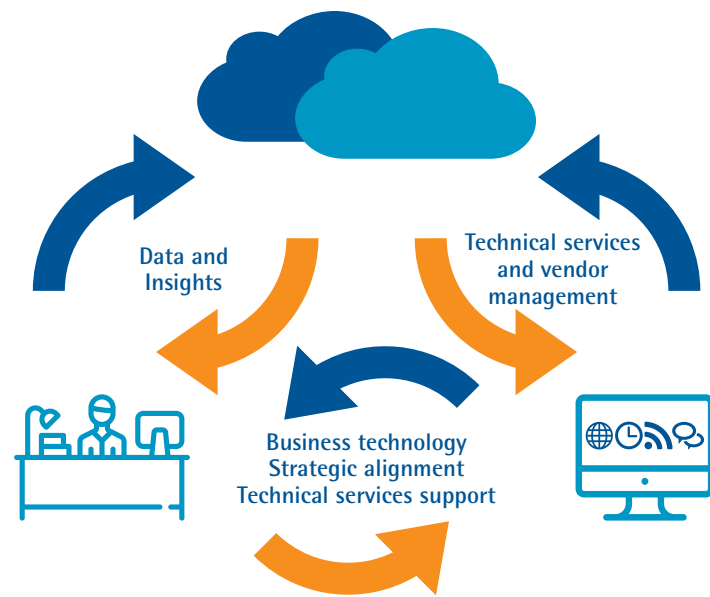
“Business needs to give IT a seat at the strategy table, whilst IT needs to rearm itself with digital talent and business acumen.”

The Cloud Provider, Business and IT Partner Relationship

Big changes to the Business-IT relationship

These two developments have not only sparked a major evolution in the way IT service providers engage with their clients, but a massive transition in the way IT is viewed by business on the whole. The IT industry is no longer the "break-fix" contractor that sits outside the business or within the finance department performing purely a "cost centre" function. Businesses now need to give IT a seat at their boardroom, C-suite and decision-making tables to support and guide sustainable business growth through technology strategy and agility; whilst IT itself needs to rearm itself with the digital talent and business acumen it requires to be able to service its clients both strategically at the C-suite level and technically at the end user level.

This is a remarkably demanding and complex relationship to reengineer. Not least because the introduction of a third party in the relationship now in the form of cloud providers, means that the traditional two-way communication between business and technology provider needs to be expanded so that the expectations and requirements of all three parties are met. And whilst we repeatedly see and hear much about alignment and partnerships being made between major industry players and technology giants, there is little out there to guide the time-poor and resource-strained Australian SME down this path.



What is holding Australian SMEs back from benefitting from digital technologies?

There remains a major *disconnect* between the "vision" of what the SME actually wants to be able to do to be more agile and service their customer better, what the strategic IT provider knows will help them achieve this, and the "reality" of what they can actually afford to do time-wise, resource-wise, and skills-wise.

This *digital disconnect* is exacerbated even further by the average SMEs intrinsic lack of trust in IT, older employee vs. millennial generational resistance to change, and a general dose of scepticism that digital transformation is pie in the sky talk. Many SMEs simply do not as yet have a true appetite for digital transformation.

What would help Australian businesses to embrace digital technologies?

This disconnect will only be resolved by building awareness within SMEs, by incentivising digital transformation, normalising proof-of-concept initiatives, and providing them access to support, engagement and thought leadership.

Clear communication around emerging standards is also essential as many SMEs are fearful of "technology lock-in", which effectively renders investments useless if they implement prior to the development and communication of new standards.

Post implementation SMEs require access to both specialised and general training to ensure they stay digital-first. And finally, SMEs are constrained to a major extent by the lack of suitably skilled resources in the employment pipeline. Our schools and tertiary education sector clearly need guidance and assistance to transition their IT education to ensure more candidates with higher level technology AND business skills sets are entering the employment marketplace.

What is our vision for an Australia that thrives in the digital economy? Where would we like to see Australian SMEs in 5, 10 and 20 years' time?

The current state of play

At Microsoft's premier Australian conference event this year Microsoft Summit 2017, Microsoft Australia MD Steve Worrall's opening keynote centred on the news that Australia's business efficiency ranking has slipped from 17 to 27 globally.

Let's consider some other background factors. According to November 2017 OECD statistics¹, Australia's average household net adjusted disposable income and household net wealth have been amongst the highest in the OECD over recent years with good performance in jobs and earnings as well. Yet, the financial net worth of the total economy relative to other OECD countries has fallen and Australia lies BELOW the OECD average in terms of work-life balance. Australian full-time employees have less time off than those in other OECD countries and more than 13% of employees regularly worked 50 hours or more per week in 2016.

What does this tell us? That even though we are working more, our business efficiency is on a downward dive! We are increasingly relying on our human resources to do the job, but the efficiency gains are not there.

¹ *How's Life in Australia* Nov 2017
<https://www.oecd.org/statistics/Better-Life-Initiative-country-note-Australia.pdf>

Our vision for Australian SMEs

Our vision would be to see SMEs, the big ideas and innovation generators that will support and underpin Australia's digital future, become more empowered through knowledge, engagement and opportunity, enabling them to truly leverage both the cost and time efficiencies that transformative technologies have to offer.

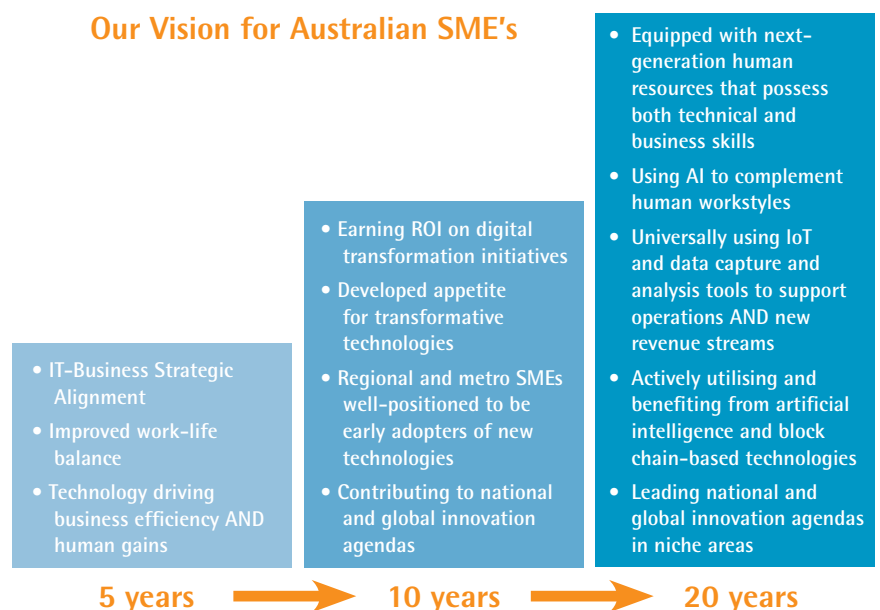
In 5 years' time, we would like to see SMEs fully empowered with the knowledge and intent to give IT a permanent seat at their strategy and decision-making tables to drive their strategic business outcomes through new technologies.

We would like to see Australian SMEs using business technology to reverse the tables on their work-life imbalance and see our business efficiency ranking start to move back up the scale. Proof that we are using business technology to its purpose: to generate sustainable business efficiencies, as well as human gains and outcomes.

In 10 years' time, we would like to see these gains translated into a robust and knowledgeable SME sector that, having reaped the ROI on earlier successful digital transformation initiatives, has a well-informed and developed appetite for transformative technologies, thus ensuring that Australia can continuously remain at the forefront of the strategic business technology adoption curve – not just at the top end of town, but in SMEs across smaller cities and regional centres too.

In 20 years' time, we would like to see Australian SMEs utilizing and reaping the benefits of today's next game-changers: the Internet of Things, artificial intelligence and machine learning, blockchain technologies (or the derivatives thereof).

Our Vision for Australian SME's



What do we predict is on the horizon for SMEs in 5, 10, 20 years' time?

In 5 years' time

Workplace

- Early moves towards a desktop-less, laptop-less, totally mobile, secure, cloud-first workplace
- Seamless, secure, unified multi-cloud work environments
- Unified communications

Security

- Transition to machine learning and AI in immune-system-like cybersecurity systems
- Digital identities and digital twins
- The death of the password

Artificial Intelligence (AI)

- Voice search and command technology and native language processing
- Early adopters leveraging machine learning and AI, especially in the data analytics space
- Increased human interaction with bots

Professional Services and Industry

- The development of Fintech-like innovation in both the insurance and legal industries
- Blockchain-derived applications in the insurance, legal and public sectors
- Increased use of augmented reality, virtual reality and mixed reality use in medicine, construction and industry, education and retail settings

In 10 years' time

- Totally desktop-less, laptop-less, totally mobile, secure, cloud-first workplace
- Normalised routine daily interaction between humans and bots
- Disappearance of businesses not investing in data analytics as of 2018
- Blockchain-derived technologies in healthcare and medicine
- First truly Smart City inspired Internet of Things (IoT) enabled services
- Marked mass uptake of industrial IoT and sensor-enabled devices across all scale of enterprises
- Quantum computing feasible for medium-sized organisations

In 20 years' time

- Beginnings of a mixed and complementary human and AI workforce
- Machine/Human augmentation (thought-driven computing)
- Driverless cars
- IoT and Data-capable everything
- Common use of Quantum Computing



Positioning SMEs to build digital AND business skill sets.

The challenges: What opportunities do we have to equip Australians and SMEs with the skills they need for the digital economy, today's jobs and jobs of the future?

Even though many of these big future technologies are all the talk right now, the reality is that they remain well beyond the scope of even the more future-focused SME today. In Australia, SME staff are still struggling to balance their workloads in the cloud and share files securely and effectively on a daily basis.

This is the challenge for the future of Australia's digital economy: better engaging and supporting the SME sector to leverage the opportunities transformative technologies offer to enable SMEs to firstly, realise their potential as businesses and secondly, position themselves to contribute more broadly to innovation and advancement both nationally and globally.

As discussed earlier, SMEs are constrained to a major extent by the lack of suitably skilled resources in the employment pipeline. Our schools and tertiary education sector clearly needs guidance and assistance to transition IT education so that more candidates with higher level technology AND business skills sets are entering the employment marketplace. It is critical to make this adjustment to our education system and talent pipeline now and promote and fortify industry-based training in IT to arm graduates with practical, higher-level skills. This is even more critical looking forward as Artificial Intelligence has the potential to render the current entry-level graduate skill set redundant in the not-too-distant future.

What is the role of government in achieving our vision?

We see the government as having a key role in building and nurturing Australia's digital future in six key areas: Building trust, Leading by example, Facilitating engagement, Standards and governance, Championing Australia as a digital leader, and Nurturing inclusion.

1. Building trust

As the Australian Institute of Company Directors recounted in their 2017 Essential Directors Updates², global business is facing an implosion of trust and government is not standing up too well³.

Trust in government sits below the benchmark 50% line, putting government in the "Distrusted" category. Furthermore technology headlines popping up in SME leaders' inboxes like, *56% of Aussies dissatisfied with govt digital services*⁴, not to mention persistent NBN-related problems e.g. *The NBN for SMEs: Not business grade yet*⁵, just stoke the embers of distrust.

There is a definite feeling in the SME space, even more marked in regional areas, that there is a lack of clear digital direction, leadership and engagement from government.

² <http://aicd.companydirectors.com.au/events/essential-director-update>

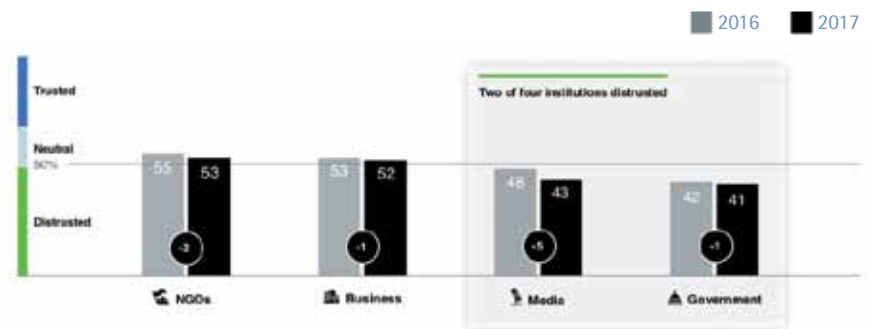
³ <https://www.edelman.com/news/2017-edelman-trust-barometer-reveals-global-implosion/>

⁴ <http://www.technologydecisions.com.au/content/gov-tech-review/article/56-of-aussies-dissatisfied-with-govt-digital-services-668974642#ixzz4xoFl63qz>

⁵ <http://www.technologydecisions.com.au/content/networking/article/the-nbn-for-smes-not-business-grade-yet-298721445#axzz4zantOutQ>

Trust in All Four Institutions Declines

Percent trust in the four institutions of government, business, media and NGOs, 2016 vs 2017.



Source: <https://www.edelman.com/news/2017-edelman-trust-barometer-reveals-global-implosion/>

The role of government in achieving our vision



2. Leading by example

Business technology providers such as Maxsum are trying to build the appetite of SMEs to recalibrate their risk mindset and to take on small digital transformation projects that are strategically managed with a view to incrementally bigger initiatives. Yet organisations such as ours that are championing the urgency of digital transformation are hamstrung by the perception amongst SMEs that our own leaders in government shy away from owning their digital failures and are resigned to taking two steps back for every one gain made, instead of pivoting from failures with strategic adjustment to forge forward.

For example, we cite the discussion in technology circles around the opportunity lost for correcting public perceptions of the 2016 Census' digital failings by perhaps incorporating digital technologies successfully into the 2017 SSM Plebiscite⁶.

The Australian government is tasked with an urgent need, in our belief, to reengage more broadly and deeply with the SME sector to build trust by leading by example and demonstrating a one-step-back, two-steps forward, incremental but ongoing approach to digital initiatives.

⁶ <http://techau.com.au/blockchain-could-have-saved-120-million-on-australias-ssm-vote/>

3. Facilitating engagement

Based on our own experiences in assisting businesses both regional and metro and across many sectors to use technology to move beyond their boundaries, these are the areas we would like to see government taking a leading role in building engagement.

- **Knowledge building and thought leadership:**

Whilst large organisations and businesses may have the budget, resources and clout to align themselves and build relationships with major international and Australian technology companies, this is beyond the scope of most Australian SMEs; even more so if that SME is situated in a regional area. Most major technology companies operate well-established partner programs that support, benefit and empower the active and forward-thinking IT provider to provide great solutions, but more needs to be done to facilitate direct engagement between representatives from major technology companies and end users. At Maxsum we have actively sought to bridge this gap ourselves over recent years by running a series of Exclusive Access⁷ events, where we invite representatives from major companies we source products and solutions from to share knowledge, ideas and future predictions with SME business leaders. These have proven very valuable and have been well received by SME business leaders.

⁷ <http://exclusiveaccess.com.au/>

In a similar vein, we believe there is a huge opportunity for government, especially local governments by leveraging relationships that state and federal governments may have with large vendors, to facilitate, or at least actively participate in, such strategic engagement and knowledge-building events or initiatives that specifically target digital technologies and are designed to nurture a digital mindset amongst their constituent SMEs.

- **Collaboration and relationship building:**

Likewise, there is a real need for local and state governments to offer more tailored "showcase" style events or initiatives that bring big-name market leaders out into local and regional areas. Such events would also allow local and regional SMEs to showcase their innovations and leverage the opportunity to build relationships with government, bigger name technology partners, other SMEs, and potential clients all in the one place.

SMEs rarely have the resources and connections to engage directly with major technology market leaders. There is much the Australian small business ecosystem could benefit from the opportunity to engage with major SME-supportive technology players.

In this way SMEs can keep innovation local but fully benefit from government and market leader involvement and facilitation on home turf.

4. Standards and governance

There is an urgent and essential need for the Australian Government to take a leading role in building and implementing highly agile and responsive regulatory frameworks that can be very quickly and adeptly reviewed and scaled up and out as fast as digital change necessitates.

In particular, SMEs are crying out for direction, guidance and real communication from government sources on the state of play for emerging technologies, and whether their investments in emerging technologies today are going to be impeded by future regulatory introductions.

Areas SMEs require government initiative and communication on are:

- Governance on data ownership and privacy issues, as well as legal requirements in relation to Australia's incoming data privacy laws and the introduction of the EU's GDPR in relation to Australian SMEs.
- The preferred direction that Australia will ultimately take in relation to connected device and IoT (Internet of Things) standards. This is of particular interest to many innovators in regional Australia who are redirecting their agricultural and manufacturing expertise into the agtech and industrial domains.
- A minimum cyber-secure accreditation or benchmarking scheme that is SME-friendly and capable of running supply-chain long.

Do Businesses need to think about a public cyber star rating⁸?

⁸ <http://www.zdnet.com/article/businesses-need-to-think-about-a-public-cyber-star-rating/>

- Minimum standards for SMEs to have data recovery and business continuity plans in place to protect Australia's SME landscape from decimation by cyberattack or disaster.

5. Championing Australia as a digital leader

• Research and development

The Australian technology sector is looking to the public sector and the government for leadership and engagement on R&D and coming up empty. At present technology R&D is driven predominantly by the private sector (often offshore at that), which ultimately raises issues of accessibility, inclusion, and leaves Australia in the permanent follower position (and often a slow follower at that). Australia has the skills and engagement in the private sector to establish ourselves *not only as a fast follower, but as a leader* in many technology arenas, but lacks public sector backing and partnerships to do so.

• Promoting a venture capital culture

Australian start-ups, innovators and SMEs are missing out on the capital investment that could enable them to leapfrog to the forefront of technology development in their arenas due to the lack of an accepted venture capital culture in the private sector. We call on the government to look at ways to support the nurturing of a venture capital culture that would empower the private sector and public sector to work together in finding flexible

and creative ways to fund our emerging innovators.

• Rebranding "Australian Made" in the digital era

SME businesses are feeling a very real threat from the arrival of online giants like Amazon to the Australian retail landscape. The generation that remembers the "Buy Australian Made" campaign of the 1980s is not the generation that is today making major purchasing decisions based on price and user experience online.

We believe the Australian government needs to revisit this messaging with a new-generation, millennial-focused version of the Australian made campaign to counter this generation's tendency towards one-click speed decision-making based on price alone. There needs to be a government-driven message around the idea of "engaging globally, investing locally" to reinforce the idea that spending with Australian digital businesses represents a reinvestment in promoting and sustaining Australia's digital innovation and ecosystem.

6. Nurturing inclusion

We see that the government has a role in nurturing inclusion and addressing Australia's "digital divide" in two key ways.

- **In the workplace: What opportunities do we have to ensure digital technology has a positive impact of work practises and social relationships?**

The flexible, mobile workplace of the future will enable more people with different ways of working to tailor the way they work to be their most productive. Whilst this will be a major step forward in assisting people to return to the workforce and in encouraging new work styles that will cater to the cognitive diversity of the workforce, there are also some potential human pitfalls that may accompany a dispersed workforce. Social isolation due to lack of in-office contact, a dominant reliance on social media and electronic message forms as main modes of communication, and building balance into an always-on work culture are key areas where SMEs will require support and guidance. The government, we believe, will need to build awareness on these issues with both senior management and employees so that organisations have the necessary checks and structures in place to support the wellness needs of their workforce when they may no longer be having human contact with them daily.

- **In the NFP sector: What opportunities do we have to bridge the "digital divide" and make the most of the benefits that digital technologies present for social inclusion?**

We know, and have seen first-hand, that the Not-for-Profit sector in Australia is in the midst of a relentless game of catch-up. NFPs in Australia today are struggling to deal with faster evolving regulatory landscapes and the emergence of new funding models, but their legacy systems are not agile enough or fit-for-purpose. NFPs are tasked with finding new and urgent solutions to operational issues, including risk and reputational management issues, the setting and communicating of culture, being able to service multi-generational employees and clients all of whom have varying expectations and needs, and not least of all, the need stay true-to-purpose, ensure financial sustainability, and invest in their organisation's future.

Our NFPs service many of the most disadvantaged sectors of our community and are the best positioned to be able to promote the inclusion of those Australians currently on the less-engaged side of the digital divide. But to facilitate this, NFPs first need to make efficiency gains in their own organisations that will allow them to generate profit-for-purpose to reinvest in their own digitally driven efficiency gains. That will in turn, improve digital engagement and user experience for their service users and stakeholders, too.

The government has a crucial and urgent role to play in supporting our NFPs in accessing strategic business technology services that will empower them to move beyond their legacy system complexities and allow them to build *profit-for-purpose* platforms and make digital efficiency gains that they can then reinvest in servicing their stakeholders.



What key disruptive technologies or business models do we see?

1. Highly accessible next-generation cloud-based tools

Cloud is the disruptive technology that just keeps disrupting! Whilst many businesses have made initial moves to the cloud for storage, security and workload balance gains, accessible cloud based tools are now providing SMEs with enterprise-grade solutions that were previously cost- and resource-prohibitive to them. A key disruptor, or differentiator, for SMEs today is the availability of cloud-based tools that enable data capture, analysis and creative data visualisation. This changes the array of actionable information early-lead SMEs have available to them to make faster more responsive decisions.

We are collecting and generating exponentially more and more data every second that ticks by via our multitude of connected devices. Yet at present 95% of that data goes unutilised. Drilling down into the SME space, from experience we would say that figure is probably much closer to the 100% mark.

New, accessible data analytics, interpretation, dashboarding and strategy tools represent a major disruptive force in the SME space because they will allow early adopters to gain a huge differentiating edge over competitors. However at present, very few have the skills sets, much less the conscious awareness of the impact competition in the data analytics space will have on their business models, their ability to make efficiency gains, and their ability to win and retain clients.

This will have three major effects on SME operations and business models.

- Using these data collection and analytics tools requires a clear strategy so that decision makers can turn that data into meaningful and actionable

information. The SME and IT provider alike are now faced with the challenge of requiring a host of all new skills sets that the SME will require access to on demand, and on which the IT provider will need to stay top-of-game. From data scientist (design and collect) to data analyst (mine, dashboard, and analyse) to business strategist (interpret insights and direction) to digital transformation officer (execution of data-driven decisions) to customer experience designer and officer (using data to meet end user needs and completing the loop with feedback: i.e. new data).

- The scale and pace of business technology change will only become even faster and more complex. SMEs, no matter how agile, will struggle to keep pace with technology expertise and knowledge demands and this threatens to cut into the productivity and profitability of their core business. More and more we see that SMEs will become reliant on the vCIO (Virtual CIO); a technology partner that will sit outside their business but will work directly with in-house IT resources to design and oversee the organisation's strategic technology direction and advise on the dedication and reallocation of resources as appropriate.
- SMEs, and indeed all organisations, will rely more heavily on ecosystem partnerships to keep the cogs of service delivery churning: A new model of specialisation if you will, where all but core business will be dealt with in-house, and businesses will rely on stringently chosen, aligned partners who they trust and empower with their intellectual property to deliver their customer-first, data-driven services at speed and scale.

2. Artificial intelligence (AI)

AI and machine learning is already being used in its early incarnations in many Australian organisations; especially in the marketing and customer experience departments of businesses beginning to explore and embrace the use of AI in the fast-moving world of lead nurturing, data capture, customer relationship management (CRM) and sales follow-up.

However, we are on the cusp of businesses, large and small, leveraging AI to perform many of the more routine or mundane tasks in day-to-day operations.

We foresee the following effects on SME operations and business models⁹:

- A need for retraining and upskilling of staff in roles replaced or displaced by AI
- SMEs will require a larger proportion of their workforce to have higher level, more business-focused skills sets
- SMEs will need to be able to employ and retain a staff with a much broader range of cognitive diversity and human skills, and have them working in an operative structure that empowers them to interpret and re-humanise AI-generated work to be meaningful and personalised for the end user/customer.

⁹ Maxsum MD Joe Ciancio recently spoke on this topic at TEDxBendigo 2017: Maintaining Human-Centric Connectedness in a Future AI World: <https://www.maxsum.com/news/connections-inspire-at-tedxendigo-2017>

What barriers are there for business, particularly SMEs, in adopting cyber security and privacy practices?

And, what roles should government and business play in protecting the SME community?

The cybersecurity landscape for Australian SMEs

The reality of the SME business landscape at present is that as SMEs get on with the day-to-day grind of running of their business, they still really don't give too much thought as to what will happen if they suffer a cyberattack or data breach. This is still a matter of awareness and education at the coalface, and technology providers, backed by their security vendors of choice, are still the primary go-to people, sometimes solely responsible, for educating businesses and their employees as to cyberattack risks, requirements and consequences.

But the recent surge in cybercrime targeting and disabling businesses around the globe has served to demonstrate the real risks to business leaders (and finally legislators too) and that top-down privacy and protection oversight within and across organisations is a non-negotiable.

Cyberattack costs Australian small businesses an average \$6,600 per attack with that number rocketing up into the tens and hundreds of thousands very quickly the bigger the business and the more invasive the incident. Even more telling, 31% of businesses have said that their business would not be able to survive *beyond a week* if disabled by cyberattack¹⁰; the potential fallout gets up into the millions!

If SME business continuity is at risk, so too is Australia's small business innovation ecosystem itself.

¹⁰ <http://www.riskmanagementmagazine.com.au/news/cost-of-cyber-attacks-on-small-businesses-revealed-234336.aspx>

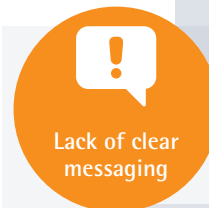
Barriers to effective cybersecurity in SMEs

Line this risk factor up against the fact that only 14% of small businesses last year were covered by a cyber insurance policy¹¹.

Based on this meagre uptake of proactive protective measures coupled with the widespread complacency we as a technology provider still battle daily, we can deduce that the barriers to adopting cyber security and privacy practises are a combination of:

- A persistent lack of awareness, and an "it won't happen to us" attitude
- A lack of skilled and knowledgeable resources, both within organisations and available in the employment market, capable of driving IT provider directives to senior management
- Lack of consistent cyber security policies and procedures at line-of-business level
- No understanding of the role of or need for cyber insurance
- A lack of clear messaging on broader business risks, requirements and consequences from government level.

Barriers to effective cyber security in SMEs



¹¹ <http://www.riskmanagementmagazine.com.au/news/cost-of-cyber-attacks-on-small-businesses-revealed-234336.aspx>

Top-down actions required to protect Australian SMEs

Government level

- 1) Whilst the introduction of mandatory data breach reporting coming into effect in 2018 is an extremely welcome regulatory addition, there is very little understanding at the SME coalface about what this and other existing cyber regulations actually mean for SMEs.

Government could support the IT provider and SME decision makers by providing business-targeted plain-English guidelines including the following messaging:

- Directors are no longer able to push the responsibility of cyber compliance on to the IT Department or service provider. Trusting that your "IT guy" will have it covered is definitely a recipe for disaster, and having your IT Department or CIO "brief" the board annually will not cut it either. Cybersecurity measures and planning needs to be undertaken systematically and comprehensively by a party with a permanent seat at the board table.

- Data breaches are not just an "IT issue" but affect the business, the brand and its valuable assets. Businesses will need help to meet new compliance and privacy obligations, to assist employees to understand and apply internal and external policies about information and data handling, and to systemise how data breaches are identified and addressed.
 - Business will have to make information about their cyber risk publicly available to reassure investors and stakeholders that the board is across cybersecurity issues. Going forward, cybersecurity risks should be a prime consideration consistently addressed in public reports and communications.
- 2) A minimum cyber-secure accreditation or benchmarking scheme that is SME-friendly and capable of running supply-chain long.

Do Businesses need to think about a public cyber star rating¹²?

- 3) Minimum standards for SMEs to have data recovery and business continuity plans in place to protect Australia's SME landscape from decimation by cyberattack or disaster.
- 4) Actions to address the lack of cybersecurity technology and business skills sets in the Australian labour market through actively addressing gaps in IT education portfolios in tertiary settings and through bolstering industry-based cyber-threat training.

¹² <http://www.zdnet.com/article/businesses-need-to-think-about-a-public-cyber-star-rating/>

Business level

We believe SMEs, aided by consistent messaging from both the government level and IT providers, need to be supported in implementing a framework that mandates a formal, possibly accredited, approach to achieving cyber maturity. This ideally would necessitate businesses benchmarking themselves against a formalised risk assessment matrix centred on the following questions:

1. **Cyber awareness:** What are the new cyber security threats and risks, and how do they affect our organisation?
2. **Cyber security:** Is our organisation's cyber security program ready to meet the challenges of today's and tomorrow's cyber threat landscape?
3. **Cyber maturity:** What key risk indicators should we be reviewing at the exec and board levels to perform effective risk management in this area?

Such a scheme would ideally set minimum requirements for robust, regular and scheduled employee education, training, cyberattack simulation and recovery drills, and policy and procedural reviews.

Critical cyber risk questions for the Australian SME

Many SMEs are still in the dark...

- Am I asking the right questions?
- Are we doing enough?
- Are we making the right decisions?
- Have we made ANY decisions?
- How do I stop worrying about what if and when?
- Do my staff know what they're doing?



What underlying data, platforms, protocols and standards does Australia need to maximise the opportunities of the digital economy?

And further to this, what opportunities do we have in standards development and regulation to enable digital entrepreneurship, innovation and trade, and mitigate the risks associated with digital disruption?

As detailed earlier, SMEs are in urgent need of direction and communication from the Australian government on issues including:

- Governance on data ownership and privacy issues, as well as legal requirements in relation to Australia's incoming data privacy laws and the introduction of the EU's GDPR in relation to Australian SMEs.
- The preferred direction that Australia will ultimately take in relation to connected device and IoT (Internet of Things) standards. This is of particular interest to many innovators in regional Australia who are redirecting their agricultural and manufacturing expertise into the agtech and industrial domains.
- A minimum cyber-secure accreditation or benchmarking scheme that is SME-friendly and capable of running supply-chain long.

Do Businesses need to think about a public cyber star rating¹³?

- Minimum standards for SMEs to have data recovery and business continuity plans in place to protect Australia's SME landscape from decimation by cyberattack or disaster.

Further to this, we believe there are opportunities for the Australian government to take a digital global lead by:

- Developing standards for the use of captured IoT data, mandating that the data needs to be made publicly available for commercial use, particularly in the Smart Cities innovation and development space; this would allow companies to leverage this data to create truly needs-based and data-driven innovations and solutions.
- Developing standards for the use of anonymised data captured in hospitals and other medical settings, mandating that the data needs to be made available via a medical facility platform that could then be leveraged by industry to develop and tailor services.
- Developing an integrated government-based system that allows for more efficient and responsive e-commerce based transactions.

E.g. an ATO-sponsored service that provides businesses with an automated and verified credit-check facilities.

¹³ <http://www.zdnet.com/article/businesses-need-to-think-about-a-public-cyber-star-rating/>

In Conclusion

Are SMEs going to pack up their digital bats and go home?

Most definitely not, and certainly not if we can help it! If anything Australians are known the world over for their tenacity, resourcefulness and can-do attitude, and our SMEs certainly have the entrepreneurial grunt to up their game and build a solid foundation for Australia's digital drive forward.

It is time, however, for SMEs to build an appetite for business technology strategy at their decision-making tables. And for this they will require leadership, guidance and capacity-building input from trusted partners, IT providers, and from the government sector.

Truly strategic business technology investments are designed to generate efficiency and productivity gains that will translate into cost savings business-wide. Overhauls of legacy systems and the introduction of all-new cloud-based operational models, themselves disruptive by nature, will most definitely deliver a return on investment if implemented under a strategic business-wide plan, BUT the ROI may not be immediate. It's a longer term, unite and conquer initiative. This transitional phase is where SMEs will require support, incentives and encouragement to keep the digital ball in play.

The purpose of Maxsum's contribution to the Digital Economy discussion has been to highlight the challenges faced by Australian SMEs in building their digital capacity for the future.

We invite any feedback, comments and questions. Now that the conversation is open, we look forward to keeping it going.

Enquiries or comments in relation to Maxsum's *Forging Our Digital Future* 2018 Whitepaper written in response to the Australian Government Paper *The Digital Economy: Opening Up the Conversation*, can be directed to our Marketing and Communications Department.

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*Enabling Opportunity,
Realising Potential.*

About Maxsum Consulting

Established in 2001, Maxsum is now one of the leading business technology companies in Australia. From its base in Bendigo, Maxsum services offices in Melbourne, Brisbane and Perth, and clients across the country.

We work with organisations in a variety of industries, assisting them to grow beyond their boundaries. In particular, we align well with businesses in Professional Services, Not for Profit/For Purpose, Retail, Manufacturing, Mining and Automotive.

Maxsum's key distinguishing features, we believe, are our "seat at the table" approach to strategic change and business technology planning and implementation, and our business technology acumen as the largest locally owned business technology company in the Central Victoria region.

Maxsum was established in 2001 by founder and Managing Director Joe Ciancio. After graduating from the University of Melbourne and the prestigious Tokyo Institute of Technology, Joe worked in IT and electronics in Japan, Silicon Valley, and across Asia and Europe before bringing his global insights back to Australia to found Maxsum in 2001. Joe has a real passion for innovation; not just tech for tech's sake. His driving force is strategy and helping business leaders find solutions to challenges that will generate opportunity and real outcomes. This approach is built into Maxsum's culture and underpins all our business technology solutions. Today Maxsum is the largest locally owned IT service provider in Central Victoria and was named one of the Top 50 fastest growing technology companies in Australia in the 2015 CRNFast 50 awards.

For more information about Maxsum Consulting, call 1300MAXSUM or visit www.maxsum.com

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