FOR AUSTRALIA DIGITAL TRADE AND OPPORTUNITIES FOR OUR REGION

GAP 9th Annual Growth Summit

NSW Parliament House Sydney, 6-7 September 2018















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Statements made during discussions are the personal opinions of the speakers and do not necessarily reflect those of the organisers and sponsors of the Summit.

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INTRODUCTION

Digital trade and opportunities for Australia and the region were the themes of Global Access Partners 9th Annual Economic Summit, held at the Legislative Assembly Chamber of NSW Parliament House on 6-7 September 2018 in Sydney.

'A Vision for Australia: Digital Trade and Opportunities for Our Region' welcomed a select audience of over 150 Australian and international delegates, including government executives and policy makers, industry and business leaders, academics and social commentators. The Australian Government has called for industry leadership in the formation of digital trade policy, and the Summit offered a platform for high-level consultation with business.

Discussions highlighted a major opportunity for Australia to advance digital trade by strengthening trade and investment link throughout the Indo-Pacific and opening new markets for small to medium-sized enterprises (SMEs).

Delegates heard speeches by the Hon. Anthony Roberts MP, NSW Minister for Planning, Minister for Housing, and Special Minister of State; the Hon. Dr Andrew Leigh MP, Shadow Assistant Treasurer, Shadow Minister for Competition and Productivity, Shadow Minister for Trade in Services, and Shadow Minister for Charities and Not-for-Profits; Dominic Trindade, Assistant Secretary, Services, Investment and Intellectual Property Branch, Department of Foreign Affairs and Trade (DFAT); David Hazlehurst, Deputy Chief Executive Officer and Executive Director, Business, Partnerships and Support, Australian Trade and Investment Commission (Austrade); and Peter Harris AO, the outgoing Chairman of the Productivity Commission.

The Plenary Sessions were chaired and facilitated by Tanya Stoianoff, Head of Government Affairs, DXC Technology Australia and New Zealand, and the Hon. Cr Philip Ruddock, Mayor of Hornsby Shire Council and President of the NSW Liberal Party.

Select presentations and blog posts by Summit speakers and delegates are available at www.openforum.com.au/forums/digital-trade/

As part of the programme, delegates enjoyed project demonstrations by the bitfwd¹, a grassroot community of blockchain developers, entrepreneurs and crypto enthusiasts, Google's tech teams, and virtual reality producer Daniel Stricker.²

In the lead-up to the Summit, on 6 September GAP and the International Centre for Democratic Partnerships (ICDP) co-hosted the inaugural Pacific Connect Forum, which brought together Australian and Pacific current and emerging leaders to discuss digital transformation as 'an enabler of opportunity' in the Pacific. A delegation of Pacific guests participated in the GAP Summit.

About the GAP Annual Economic Summit

A Vision for Australia is an annual Summit series designed to foster outcome-based engagement on key issues of value to Australia, such as productivity, infrastructure, education, innovation, job creation and prospects for future economic growth. Recommendations are progressed through multidisciplinary taskforces, pilots and projects facilitated by GAP. Summit reports of proceedings can be reviewed at globalaccesspartners.org/think-tanks/growth-summit.

EXECUTIVE SUMMARY

- Global Access Partners' Second Track process brings a wide range of stakeholders together to create and implement long-term strategies to address common problems in a safe and creative environment. Population growth and digital transformation create challenges and opportunities for NSW and Australia, and the NSW Government and GAP are committed to finding and delivering solutions which benefit both current and future Australians.
- The Summit discussed measures to increase the openness of digital trade and data exchange. Delegates also explored the ways in which small, agile firms and large corporates can maximise their comparative advantages and encouraged government and industry to collaborate on frameworks and standards to boost growth while protecting consumers.
- Technology is transforming the world, but similar disruptions have occurred in the past and created more jobs and prosperity, despite the fears of pundits and incumbents. New sectors are created, while old ones evolve to use new technology to meet consumers' changing needs. Just as newspapers thrived after the invention of the telegraph, so modern industries will adjust or be replaced by new ones, although these changes may take decades to fully work through the system, just as they did in the past.
- Sustained improvements in productivity are the only way to boost Australia's stagnant wages.
 Innovation and competition should be spurred by Australia's new rights for consumers to jointly control the personal data collected for

- commercial reasons. While European legislation looks to limit its use, Australian consumer data will become an important, tradeable asset which will benefit consumers as well as companies. New standards for the finance industry and other sectors will increase consumer confidence in the use of their data and reduce the potential of corporate abuse.
- Digital transformation creates opportunities for criminals and hostile states as well as corporations and consumers. Better cyber security must be adopted by companies, agencies and individuals to repel attacks and cyber resilience developed to recover from incursions. Australia can generate value by developing cyber-services for export as well as supporting digital development in the Indo-Pacific region through aid, trade, infrastructure and education.
- Australia has pursued trade liberalisation and tariff reform since the late 1960s, but despite its benefits of growth, choice and prosperity, the public remain sceptical and must be continually reminded of its advantages. Tariffs remain low in historical terms, despite recent trade disputes, while the agenda of trade talks has expanded to include labour rights, environmental protection and intellectual property. New domestic measures and international agreements are required to prevent multinational firms avoiding tax and undermining national finances and faith in free trade. The Labor party backs measures to increase Australian engagement with Asia, given the region's rapid economic growth and potential for Australian exports.

- The Summit offered trade negotiators and agency officials a chance to listen to stakeholders as well as address them. Australia pursues bilateral and multilateral trade agreements to reduce tariffs, enforce standards and encourage economic activity. These treaties should remove barriers to business while maintaining consumer, privacy and cyber protections, and Australia is playing a leading role in their formation. However, legislation will always lag behind technological innovation and business practice in democratic states, necessitating consumer empowerment and the adoption of 'soft standards' in partnership with industry.
- The digitisation of trade documentation in non-digital goods and services should increase supply chain efficiency, reduce barriers to entry and cut administrative costs. Singapore and Hong Kong are creating their own platforms to offer 'single windows' for trade, and Australian firms should join them. Foreign companies will prefer trading partners with digital administrative processes, rather than cumbersome paperwork. Digitisation will also reduce opportunities for fraud and tax evasion while allowing the provenance of goods to be checked to stop counterfeit goods.
- Issues such as investor-state dispute settlement, contractual access to source code, the promotion of established as well as innovative technology, stakeholder participation in trade negotiations, promoting 'brand Australia', and acknowledging the human elements and ramifications of technological change should also be addressed by business and policy makers.
- Austrade helps Australian firms export to new markets and is reassessing its operations to remain relevant in the digital age. While digital trade encompasses more than merely e-commerce, ecommerce is already an important sector, with Australians spending \$21.3 billion online in 2017.
 Despite this, Australia lags behind the UK, USA and China in terms of online sales.

- Digital flows of information across international borders now create more value than trade in traditional goods and services, and a host of sectors will be transformed by new technological and digital innovations in the near future.
- Google's search engine helps small local firms
 escape traditional geographical boundaries and
 reach new customers around the world.
 Google is also working on new transport, health
 and delivery solutions as well as encouraging
 young Australian entrepreneurs to succeed
 through online commerce in niche markets.
- India's Unified Payments Interface (UPI) is encouraging the use of digital money transfers and transactions through mobile phones.
 Cashless payments increased after India's 'demonetisation' and acceptance among consumers and vendors is growing. The UPI and similar schemes are set to grow quickly in the future, as smartphones continue to penetrate the market and more banks and services join the scheme.
- Australia should identify and leverage its competitive advantages to compete in world markets. It can develop digital services as well as using them, and use digital means to improve trade in traditional goods and services, such as agriculture and education, in which it already has an established reputation for quality in Chinese and Asian markets.
- Australian economic growth and commercial digital adoption remains hampered by poor STEM (science, technology, engineering and mathematics) skills, despite efforts to improve the situation. Government and industry should cooperate to improve Australia's skills to ensure individual employability and national prosperity in the future.

- The forging of relationships with larger firms can give scale-ups the customers they need to grow. Government procurement can also encourage innovation, while services which improve accessibility to those in low bandwidth areas should be developed alongside cutting-edge innovations.
- Automation is already common in the mining industry and may herald similar developments in other industries. Mining companies are collaborating to produce industry standards which improve safety and interoperability in the absence of government action, and other sectors should take a similarly proactive approach to encouraging company innovation while ensuring sector cohesion.
- The government's proposed legislation regarding data encryption may be worse than the problems it seeks to solve, and wider debate is required over measures to safeguard national security while ensuring individual liberty and privacy. Spurred by sensational media coverage, suspicion around government motives and competence has led to opt-outs from My Health Record which will only damage individual outcomes and health service efficacy.
- Artificial intelligence (AI) may lead to much greater economic and social change in the near future than digitisation has in the recent past. Al is already used by major retailers and services to analyse vast amounts of consumer data and influence buying patterns. As it grows in sophistication and ubiquity, AI may have the potential to replace almost every human job as it mechanises brainpower, just as machines replaced muscle in the industrial revolution. People will increasingly trust AI to make life decisions for them and will even form relationships with avatars which appear to offer the personal interest and emotional support they lack in their human interactions.
- More thought must be given to the profound changes which AI will bring to society, including the ever-closer prospect of a technological singularity, rather than the immediate ways in which AI can boost traditional industries. The type of AI presented to users, the use of AI to augment individual humans. and even the granting of rights to intelligent machines should all be considered, alongside their value to commercial entities. The development of AI appears inevitable, and so ways must be found to ensure it boosts human happiness and potential, rather than enrich a handful of increasingly dominant retail platforms or empower hostile regimes.



RECOMMENDATIONS

- GAP Taskforce on Digital Trade:
 GAP should create a digital trade taskforce with
 representatives from business, government and
 industry to investigate the issues raised at the
 Summit and produce practical solutions.
- Consumer Data Right: Australian consumers and SMEs should use their new rights of joint data control to generate value from their personal information and force companies to compete for their business, boosting innovation and efficiency throughout the economy. Take-up of My Health Record should be encouraged to improve personal outcomes and health service efficiency.
- Cyber Resilience: Australia's businesses and agencies must improve their cyber resilience to recover from malicious incursions, as cyber security will not always protect them. Individuals should also protect their own data and identities to ensure the benefits of digitisation are not undermined by the actions of criminals and hostile nations. Australia should develop and export cyber-security services to gain value from a fast-expanding market.
- Free Trade: A wider range of stakeholders should be invited to inform Australia's trade negotiations with other nations to ensure they remain relevant to fast-developing commercial and consumer needs. The case for free trade, as well as digital transformation, must be constantly made to convince a sceptical public of its benefits for themselves and the nation.
- Digitisation of Trade Documentation:
 Australian firms and industries should press ahead with digitising their documentation of international trade to reduce costs, increase speed, fight fraud and attract business from digitally minded supply chains. Australian banks

- and companies should engage with the digital platforms emerging throughout Asia, and the country should consider creating its own single-window platform and partnering with others.
- Regulatory Safeguards: Steps to combat counterfeit goods and the misuse of information should be increased to reinforce consumer confidence, while a better domestic regulatory framework and more relevant international trade negotiations will help create an environment in which Australian firms can thrive.
- Skills for the Future: Australian governments and industry should collaborate to improve the STEM skills of pupils and workers to improve their job prospects and offer innovative Australian firms the skills they require to transform and develop. STEM literacy on company boards would also hasten the uptake of more efficient business processes, such as infrastructure and software as a service.
- Access to Customers: The major problem faced by Australian start-ups and scale-ups is not a lack of venture capital, but fair and open access to informed customers. Steps to link Australian start-ups with established firms at home and abroad and mandate more adventurous government procurement practices would create a larger market for innovative solutions.
- Ethical AI: Government and business should consider the personal and social ramifications of ubiquitous and powerful artificial intelligence in the near future. AI should be used to improve human lives, rather than impoverish redundant workers, alienate people from each other and distort consumption and political choice.

ACKNOWLEDGEMENTS

Host

The Hon. Anthony Roberts MP, Minister for Planning, Minister for Housing, and Special Minister of State, NSW Government

Sponsors

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Summit Steering Committee

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PROCEEDINGS

DAY ONE - Thursday, 6 September 2018

OPENING DINNER

'Digital Trade: A Global Perspective'

Catherine Fritz-Kalish

Co-Founder & Managing Director Global Access Partners Director, ICDP

Catherine Fritz-Kalish welcomed attendees to GAP's 9th Vision for Australia Summit. She acknowledged the Gadigal people of the Eora Nation, the traditional custodians of the land on which they met, and paid her respects to elders past and present.

She thanked the GAP team and GAP participants for their outstanding efforts in building a strong bipartisan discussion network over the last 21 years. GAP's Second Track process helps governments work with business and academia to conceptualise reforms and develop new opportunities.

Collaboration, hope and common values make progress possible. GAP works with creative thinkers from all sectors who share a similar mindset and desire to build a better Australia. Together they can achieve things through GAP that they could not on their own.

Ms Fritz-Kalish recalled Andrea Boyd's powerful plea for an Australian space agency at the 2016 Summit and GAP's successful efforts to turn that vision into reality. Other achievements include the launching of Australia's first cloud computing strategy, creating the International Centre for Democratic Partnerships, and contributing to reform of NSW strata law.

Ms Fritz-Kalish invited delegates to contribute their thoughts on digital trade, the state of the nation and their vision for Australia's digital future during the debate in the Chamber. She thanked GAP sponsors for making their work possible and welcomed Google to GAP's partner community. She acknowledged the ongoing support of the Summit from Austrade, Herbert Smith Freehills, DXC Technology, and TCG Group.

She then introduced the evening's host, the Hon. Anthony Roberts MP.

WELCOME ADDRESS

The Hon. Anthony Roberts MP

Minister for Planning, Minister for Housing, and Special Minster of State NSW Government

Minister Roberts welcomed delegates and VIP guests to the Parliament of New South Wales. He stressed GAP's important contribution to recently enacted NSW strata reforms, which will improve residents' lives over coming decades, and praised GAP's ability to achieve practical results.

The Summit will consider the realities and opportunities of digital trade in Australia's oldest Parliament. Before discussing future visions for today's digital world, Minister Roberts invited guests to remember the creative vision of their forebears such as Governor Lachlan Macquarie and their role in forging change for future generations.

Governor Macquarie was an innovator who achieved many significant firsts for the region. On his arrival in 1810, he found that Sydney had no permanent hospital and, lacking funding from Britain, he arranged for contractors to deliver and sell 60,000 galleons of rum to finance its founding in 1816. In 1842, the site became the state's Parliament and has offered a home for robust debate and forward-thinking ever since.

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Minister Roberts congratulated GAP members for their continued energy and foresight, as it takes courage and creativity to consider and help solve difficult issues. NSW's population will grow from 8 million today to 9.9 million by 2036, making it one of the top ten fastest growing regions in the world. As Minister for Planning, Mr Roberts said he understood the pressure of becoming a 'lightning rod for community concerns', and while change is both inevitable and necessary, it remains hard for those involved.

For more than 20 years, GAP has brought together business, government, academia and the not-for-profit sector to collaborate and find practical solutions to the challenges of growth. It has facilitated informed discussions in a respectful manner, and events such as the Annual Economic Summit can prepare the state for a bigger, better future by helping business and government meet the needs of a growing population.

Minister Roberts said he looked forward to considering the ideas arising from the debate and stressed the NSW Government's commitment to improving people's lives and the state's economic vitality through innovative policy. The Premier's recent announcement of a new technology hub south of the CBD exemplifies their commitment to this objective.

Minister Roberts then introduced the dinner's first keynote speaker, Peter Harris AO, the outgoing Chairman of the Productivity Commission.

KEYNOTE ADDRESS

"Digital Trade: The Scope for Anti-Competitive Behaviour"

Peter Harris AO

Chairman, Productivity Commission

Peter Harris AO said he was in no doubt that transformative digital change is underway all around us, not only through new services such as Uber and Airbnb, but also the decline of once dominant institutions such as Myer and Fairfax in Australia and Sears and Roebuck in the USA, as consumers embrace new technology.

• Technological change is not a new phenomenon and takes time to boost production

Some years ago, a New York based media mogul sparked alarm with his prediction that new technology would force the mass media out of existence. "All those papers", he said, "which serve as vehicles for intelligence, will be destroyed". However, the editor of the New York Herald was speaking in 1845 and the revolution he feared was the invention of Samuel Morse's telegraph.



"There are no simple policies to switch wage growth on and regain the faith of the public. [...] It is ironic that the thing we are most afraid of — the loss of jobs to automation — is the only development powerful enough to boost productivity and wages."

- Peter Harris AO -

The telegraph did revolutionise a wide variety of markets, change social interaction and eliminate some newspaper jobs. Junior scribes were no longer employed to rush from the docks to report the collapse of corn prices in foreign markets or the outbreak of disease, but this did not mean the end of the mass media. Newspapers adapted and increased the market for news by adding the astounding novelty of comment to supplement fact, all for the same price of a penny.

Whether it is weavers revolting against James Hargreaves' spinning jennies in the 1790s or white-collar workers threatened in the 1990s by the prospect of the paperless office, new technology is always feared as a threat to jobs and capital. In reality, while old jobs are lost and traditional processes are abandoned, new technology leads to greater investment and the creation of more jobs to replace them.

People who fret about job losses in the digital age should also worry about joining the massed ranks of pundits who predicted similar calamities in the past and were proved wrong by events. In the decades after the telegraph was introduced into the USA, newspaper sales grew more rapidly than any other period in history. In his seminal book, *The Rise and Fall of American Growth*, Robert Gordon notes that in the decade after 1870 the average American household purchased 3.1 different newspapers, up from 0.9 in the decade the telegraph was introduced.

The newspapers were spurred to add value through new features and comment because simple news sheets could no longer differentiate themselves in the market. Sales then soared with the introduction of comment, analysis and specialisation. Their rise was helped by improving rates of literacy, but there was plenty of completion from cheap books for people's leisure time and yet the penny press thrived.

The telegraph also supported rail signalling systems which allowed single track lines to be built in the USA, Canada and Australia, in contrast to the older twin line system in Great Britain. This massive saving in capital allowed much faster development of new lines in these countries, while Great Britain had already sunk a lot of capital into building dual line railways, and so transport costs shifted in favour of the new world.

The economic and social benefits of the telegraph were immense, and even if newspapers had perished forever, the net benefit to society would have remained immense. In 1890, the net benefit of the railway component alone was worth about 7% of US GDP, 40 years after the invention of the telegraph.

Wage growth relies on better productivity

No technological shift can claim a similar impact on national income today. Robert Gordon's data shows the current revolution in digital technology is not generating the same productivity gains made in the 19th or first half of the 20th century, although the figures offer room for several interpretations.

Productivity growth has declined in Australia and around the developed world, creating a genuine and threatening problem, as improvements in productivity are the key driver of sustainable growth in incomes. Paul Krugman won a Nobel prize for demonstrating this fact, and Australia's experience supports it, as income growth has declined across the nation for the majority of people since before the global financial crisis. While Australia is producing more, according to recent GDP figures, people are earning less.

The tail end of the mining boom obscured this reality for a while, but as soon as Australia's terms of trade began to revert towards the norm, the growth in real wages ground to a halt due to poor productivity growth. The same trend continues in other countries, even the USA, despite the economic boost delivered by President Trump's investment in infrastructure and major tax cuts.

Poor wage growth worries central bankers and centre political parties alike, because there are no simple policies to switch wage growth on and regain the faith of the public. Central banks around the developed world are tightening monetary policy, while countries with historically low interest rates, such as Australia, cannot reduce them any further. Either way, such policies are proving useless in tackling this wages drought.

Centre-right and centre-left governments know that artificial wage setting, like price regulation, would unleash a plethora of unwanted side effects, such as cutting the demand for labour. While some people might get a pay rise, others would lose hours or their jobs. Parties on the wider extremes of left or right may believe they can direct the economy, but history shows such schemes inevitably end in abject failure. Artificial wage regulations cannot deliver the objective of higher wages through the sustained consumer demand which highly developed economies like Australia's depend on.

Some economists argue that it is too early to condemn the digital economy as a false revolution unable to deliver higher growth. It took decades for the railways to fully exploit the advantages of the telegraph, for example, or for electricity to revolutionise manufacturing.

Industry was slower than public authorities or the general public to switch from kerosene and gas to electric lights, as industry had already invested heavily in steam-powered equipment. Consumers had little capital tied up in kerosene lamps which might also burn their house down, and so were much quicker to adopt the new technology. The new electricity companies aimed their services at consumers and public authorities, because they could readily convert.

Manufacturers who used steam-driven belt and pulley systems across a fixed plant layout clung to the old system until it wore out, and so the productivity and wages boost from electricity was delayed for 30 years until a fresh generation of managers modernised the plants and the consumer benefits from electricity were matched by business gains. The current internet revolution may take a similar course, with the rapid and self-evident consumer benefits of today preceding business productivity gains in the future.

Mr Harris said he remained optimistic about eventual outcomes but conceded that delays in digitally driven productivity growth will not comfort a workforce faced with stagnant wages today. He noted the irony of the thing which we are most afraid of – the loss of jobs to automation – being the only development powerful enough to boost productivity and wages. History suggests that mining booms are rare, and the Chinese economy has already taken its giant leap into 'guided capitalism', leaving digitisation as the best hope for the future.

New consumer data rights will drive innovation

A 2016 study by the Productivity Commission led to an inquiry which recommended a new consumer right to data, currently in the process of legislating by government. Data is the building block for all digital businesses, but consumers and SMEs now have the right to access and exercise joint control over the data held on them by all data-collecting companies and authorities. Giving consumers the power to leverage their data should intensify competition and encourage innovation, generating the productivity gains which will increase wages in turn.



National legislation has also removed barriers to data sharing and allowed the integration of data across government and state health, education and social welfare departments to allow ongoing access to trusted researchers. It is hoped that people will be more inclined to trust government agencies which share their data in light of their new right to jointly control it. Governments can then use that data to design and implement policy more effectively and remedy the lack of policy evaluation which has been criticised in several Auditor General reports.

All datasets collected on an individual by public or private actors are, in principle, subject to the new right. This data can range from supermarket fly-buy points to My Health Records or their insurance history. Individuals will now be able to profit from their data, as it becomes a tradeable asset which they have perpetual rights to, shared with the data-collecting company.

The new Australian approach contrasts with European legislation which limits data collection and minimises the time for which it can be stored. Australia's laws will see this valuable data preserved and used for other purposes, as the current destruction of datasets by researchers using government grants is akin to burning books.

Consumers may wonder what the value of their data in their various datasets may be, but a supermarket like Aldi might be willing to offer customers of Coles cash for access to their shopping habits. Customers could then tell Coles to send their data to Aldi and be paid for it accordingly. Customers' data is valuable, and they can now trade it to realise its value for themselves, rather than it merely benefiting those who collect and use it. Consumers do not have to trade their data, but if they want to, their data will always be retained and available for use in the future. Consumers can now act in their own best interests regarding their data.

While the terms and conditions of firms such as Facebook may appear to grant their users access to their data, in reality it remains inaccessible. Australian

case law also confirms that doctors own their patients' health records, rather than the patients themselves. Patients cannot legally compel their doctors to share their information with a hospital, despite it being in their best interest. Research shows that health records only make a complete circuit from GP to hospital and back again 20% of the time. In other western nations, the benchmark is 60%.

Customers will not have to download or upload any data themselves, as the exchange will be handled by the institutions themselves. However, standards on the safe exchange of data will be required for citizens to trust the process sufficiently to use their data rights effectively. These standards will have to be developed and tailored for every sector. A set of banking standards have already been drafted and will allow customers to order their current bank to give their data to a new bank or "fintech" or to use it to solicit a better home loan. The new fintech industry can only offer tailored services to consumers, if they know more about their clients than traditional banks, and their customers can now offer these firms safe. regulated access to their data, increasing their ability to compete against the troubled traditional banking sector.

Australia's decision to allow people to trade their own data will be a catalyst for competition and will encourage alternative suppliers, and so was not received well by traditional incumbents. Australian banks had to be encouraged by government to work with the standards setting group that will see the right come into operation in 2019 as part of 'Open Banking'. Similar rules will cover telcos and electricity suppliers in the near future to allow consumers to trade their data and secure better deals. A request by a customer to their existing supplier to send data to a new one may soon be enough to trigger better offers to remain. This will help replace the complicated comparison websites which are often driven by hidden rates of commission.

Open markets need enforceable rules

As well as increasing competition for consumer business in industries dominated by a few large players, the creation of reliable market rules should drive improvement in the future, as it has over the last 150 years. Open markets need well-designed, enforceable rules such as property rights to make assets tradeable. Such rules allow markets to value choices and become self-sustaining mechanisms for efficient resource allocation. The new consumer data right has the same aim, giving consumers the ability to control and trade their data, rather than granting ownership of it, a concept which would have implied a raft of other legal consequences, according to the Australian Law Reform Commission.

Despite general recognition of the data market's increasing significance around the world, it has attracted few rules to protect the public interest. There are innumerable examples of abuse or poor practice which have been borne with resignation by affected individuals, but this has not slowed people's willingness to share information in return for free or better services. This reality underlines the need for rights which presume that people will keep sharing data because they want the services such firms provide, rather than attempt to constrain the collection and retention of data.

To avoid the danger of industry players manipulating their sector's data sharing procedures to allow anticompetitive behaviour, the government accepted the Productivity Commission's recommendation that the final version every framework must be approved by the Australian Competition and Consumer Commission (ACCC). Industries will undoubtedly attempt to limit the definition of what constitutes consumer data, as new concepts like this can be easily curtailed by constraints slipped into their details. While the definition of consumer data will differ between industries, as the

stack of information required for a competitive offer in telecommunications will differ from that of health, sufficient data of the right type must always be provided.

Encouraging competition

Other countries are also trying to limit data trade through international agreements. India would like to develop its own version of Baidu, the censored Chinese search engine, and other successful Chinese entities, such as Tencent and its WeChat app, are role models for similar limitations. Australia's trade negotiators must be more alert to this threat. China maintains its 'Great Firewall' for political reasons as much as domestic industry development, but other nations may be tempted to follow suit if they are allowed to.

Many countries now insist that data must be kept on domestic servers for 'security reasons', but cross-border cloud computing is one of the most important drivers of digital disruption, as it reduces the computing costs of new entrants compared to incumbents' clunky on premises systems. Denying start-ups access to cloud services because data might cross borders will hamper digital growth, but this request has been raised in recent trade negotiations.

As well as the restrictive or anti-competitive policies which governments now seek, internet giants like Amazon and Alibaba are trying to create global trading networks which can wield market-changing power. Product suppliers in the respective US and Chinese markets these platforms dominate are increasingly forced to meet their terms, and the pressure which Australian supermarkets already put on their suppliers offers an example of what may happen here. Consumers may benefit from quicker delivery and lower prices in the short term, but at some point, regulators may have to examine their market power and make some difficult decisions.

Australia may not have to deal with these problems in the immediate future, but we will need a regulatory structure that comprehends the need to offset the market power that exceptionally large data collectors can assemble. A first step will be to ensure that whatever data they collect and wherever they hold it, if it is sourced from an Australian small business or consumer, it will be jointly controlled under Australia's new consumer right.

QUESTION & ANSWER

Catherine Fritz-Kalish thanked Mr Harris for his challenging and informative address and opened the floor to debate.

My Health Record

There was disappointment that politicians from all parties have failed to sell the obvious benefits of the My Health Record to a sceptical public. Australia risks snatching defeat from the jaws of victory once again on this vitally important issue. Some people even want to add misleading data, such as a false birth date, to their own health records in fear their genuine details might be misused. Such actions are highly irresponsible, as hospitals must know people's age to gauge appropriate treatment but indicate people's genuine fears.

It was hoped the immediate controversy has settled down and Australians were urged not to opt out, despite less than constructive media coverage. Reliable health records which can circulate between GPs, hospitals and other health providers will help both individual patients and the system as a whole. The USA sees I I,000 deaths per year from misapplied drugs in hospitals, in part through inadequate records, yet still has a better record of swapping health records back and forth between practitioners and hospitals than Australia.

Productivity through digitisation

Digitisation is the common link between wage growth through better productivity and the potential monetisation of personal data. While skills shortages or shifts in industrial relations power may produce temporary wage spikes in certain industries, sustainable wage growth across the whole economy will only be achieved by a general rise in productivity. History proves Krugman's edit that "while in the medium-term productivity isn't everything, it is almost everything".

The jolt to productivity that Australia requires could come from innovation spurred by consumers trading their data and cooperating in the collection of more data as a result. This is the opposite of the European approach of collecting the least possible data and destroying it as soon as possible. The new perpetual right for Australians to control and manage their data should benefit companies as well, as customers will be more likely to offer information if they can directly benefit from it.

The ability for consumers to control their data will be accompanied by a new set of adjacent rights, including awareness of who a data collecting partner is trading data with. Facebook users did not know that Facebook was giving Cambridge Analytica their data, for example, but in future a new Australian right to consent will force data collectors to inform consumers who their data is being shared with. This right derives from the same concept of data being an asset jointly controlled by data donors and collectors, rather than the collector alone. This should create a virtuous circle of trust-inducing confidence in the use of data, rather than the denial and fear underpinning data rules elsewhere in the world.

Catherine Fritz-Kalish thanked Mr Harris for his thoughtprovoking address and introduced Michelle Price, the CEO of AustCyber, to deliver the second address.

"Supercharging Australia's Digital Trade Through Cyber Security"

Michelle Price

Chief Executive Officer, AustCyber

Michelle Price stressed that none of the innovations the Summit discussed would be possible without cyber security. She praised Mr Harris' clear explanation of the consumer data right and said it is a world-leading, and perhaps world-beating, piece of policy that will set Australia up to succeed, but the country must capitalise on that opportunity by improving its cyber resilience.

Building Cyber Resilience

Data is now a more valuable commodity than oil or gold and the main driver of value. However, this means it attracts the attention of criminals as well as legitimate organisations, and better steps must be taken to safeguard it. The structured, compliancebased systems of networks and processes which developed countries rely on are being used by criminals and hostile nations to wipe huge amounts of value from the global economy. Around \$17 billion is lost in Australia every year through criminal exploitation of poor cyber security, while some reports estimate a trillion dollars is lost to the global economy in total. An extra trillion dollars of global wealth could achieve many things, and the majority of that value is lost from a handful of economies, most of them in this region.

Cyber resilience and cyber security are different but related concepts. Breaches of cyber security hit the headlines every day, as the media loves a sensationalist news story, but this coverage has had a positive effect by bringing cyber security into the Australian consciousness. Cyber resilience is a broader concept and focuses on how we respond to and recover from

"Other countries have realised the potential of cyber security to boost economic growth, and the market is growing by an average of 9% per annum. The Indo-Pacific region will spend a trillion dollars on cyber security products and services over the coming decade."



- Michelle Price -

a malicious cyber incident. The development of cyber protection services could drive significant economic value for Australia, while its implementation should improve productivity and efficiency in the economy and society as a whole.

While it is often claimed the world has never been more dynamic and complex, similar eras of rapid change have occurred several times before. The difference today is that innovation occurs in the new, and entirely digital, domain of cyberspace. It creates unlimited room for creation and innovation, but also a playground for criminality. It may take 30 years for society to understand and inculcate the changes cyberspace will create. The internet itself is only 30 years old and owes its origins to researchers in in the US who wanted to communicate about their research in a more efficient way. Their concepts quickly replicated, like a virus, and grew into the modern web of today.

While people take the internet for granted today, policy makers are still grappling with digitisation and the ways the physical world collides with the digital. Accelerating technological change is being exploited by criminals before safeguards can be developed and deployed, while Western democracies are being undermined through cyberspace by hostile nations. Cyber attacks have moved beyond major companies and government agencies to undermine the fabric of entire nations and the rules-based order on which governments, businesses and citizens rely.

Our inability to keep pace with technological change gives criminals a wealth of networks and systems connected to each other to exploit. Dozens of women are killed every year after former partners acquire details of their whereabouts on the dark web and hunt them down.

Australia has already fallen behind some of its competitors in terms of developing cyber protections. Other countries have realised the potential of cyber security to boost economic growth, and data from multiple sources suggests the market is growing by an average of 9% per annum, outstripping most others. The Indo-Pacific, however it is defined, is the fastest growing region in the world, and AustCyber research suggests the region will spend a trillion dollars on cyber security products and services over the coming decade.

• Cyber is a whole-of-business risk

Risk has opportunities as well as downsides and firms must think about cyber security to generate gains as well as avoid losses. Despite the losses caused by cyberspace attacks, Australia can reap larger benefits by exporting cyber security services as well as using them to defend the nation and its citizens. Every part of the economy and society must embrace cyber resilience, as they are all part of the digital revolution or directly affected by it. Businesses must see cyber attacks as a whole-of-business risk, rather than merely an IT problem.

Malicious actors often 'phish' to steal employee identities and impersonate them to gain illicit access to organisations. Technology has blurred the boundaries between home and work, and so employees must be careful to avoid dubious links and guard their identity in their private interactions as well as in the workplace. Social networks such as LinkedIn can connect people with others they do not know, and the popularity of 'BYOD' means that compromised devices at home can infect the workplace as well. One 'phishing' expedition undertaken three years ago infected an Australian organisation with malware that was only discovered recently. These technological 'sleeper agents' means that compliance alone is not enough to protect organisations.

Some Asian nations already require foreign firms to demonstrate they have cyber security embedded in their organisation before trade can commence. Some firms ask to see how a prospective supplier would respond to a malicious entity gaining access to their data systems. Australia remains a soft target for malicious activity for as long as its business sector remains complacent about the risks.

All agencies and companies must accept they will be compromised by malicious nation-state actors or criminals at some point. They must therefore develop cyber resilience procedures to respond and recover when cyber security fails. Major data breaches are not confined to high-profile American firms, and many Australian organisations have suffered breaches, not legally required to report until this year.

Earlier this year, Australian recruitment company PageUp responded well after being compromised, yet still lost corporate customers. Casting blame in this way is not helpful, and all stakeholders should accept a measure of responsibility and support each other when one is affected, just as people do during a natural disaster. Stakeholders should learn from the experience of partners and use those insights to prepare for when a similar misfortune affects them. The more resilient a nation becomes, the less of a target it will be for otherwise unsophisticated criminals who buy and use malicious hacking tools from the dark net.

As a relatively wealthy nation, Australia should help its Pacific and Asian neighbours to improve their security and resilience, as this will improve the region's 'herd immunity', just as high vaccination rates help societies combat disease. Better security measures increase the cost of criminal activity, although malicious individuals, groups and nations can still buy military grade hacking tools from the dark net to potentially bring down hospitals, electricity grids and even aircraft from the sky.

Every policy on digital growth must account for cyber risks as well as the opportunities created by cyber resilience services. AustCyber is uniquely placed as a government-funded, non-profit body to help build sovereign capability, target research funding and improve education.

Catherine Fritz-Kalish thanked the speakers, the Summit's steering committee and organisers and looked forward to a productive dialogue in the Chamber the following day.





DAY TWO - Friday, 7 September 2018

Catherine Fritz-Kalish welcomed attendees to the 2018 GAP Summit on Digital Trade and introduced Tanya Stoianoff to chair the opening session.

SESSION ONE

'Playing Fair in Digital Trade'

Tanya Stoianoff

Head of Government Affairs

DXC Technology Australia and New Zealand

Tanya Stoianoff suggested three themes to shape the Summit's discussions. Firstly, she noted Mr Harris' speech on new measures to allow Australians to control and trade their data to promote competition and innovation and invited attendees to suggest further measures to open up digital trade and data exchange.

Secondly, she wanted to explore the ways in which corporates and SMEs can exploit their different attributes to promote digital trade. SMEs can be more agile, flexible and therefore innovative than their larger brethren, while corporations can have a massive impact across the globe by facilitating systems, products and services. Furthermore, the lessons they learn different jurisdictions in the USA, Europe and Asia can be shared across their wider organisation.

Finally, Ms Stoianoff emphasised the importance of government leadership and the need to assemble the best minds in the sector to map out programmes and initiatives to facilitate growth while integrating consumer protection, trust and privacy. Echoing Michelle Price,

she also stressed the importance of viewing cyber security in terms of risk, rather than compliance. She then introduced the session's three speakers and welcomed the Hon. Dr Andrew Leigh MP to the microphone.

"Choosing Openness – Why Global Engagement is Best for Australia"

The Hon Dr Andrew Leigh MP

Shadow Assistant Treasurer
Shadow Minister for Competition
and Productivity, Shadow Minister for Trade
in Services, Shadow Minister for Charities
and Not-for-Profits

Dr Leigh thanked GAP for organising the event and then outlined the history of trade debates in the NSW Legislative Assembly Chamber.

• The enduring fight for free trade

NSW Premier and free trade advocate George Reid once opposed the state joining a proposed Australian federation which embraced tariffs, as it would betray NSW's liberal economic ethos. He quipped it would be like a reformed alcoholic setting up house with five drunkards and leaving the question of beverages to be decided by a majority vote. Despite this, NSW did join a federation which maintained a strong set of protectionist policies until the late 1960s. Free trade reforms were led by the Tariff Board – which became the Productivity Commission – and were implemented by Gough Whitlam's government and his successors from both parties. The country saw major tariff cuts under

Labor in 1988 and 1991, and reductions continued through the Howard administration.

Dr Leigh said he had spent 20 years working on Labor trade policies and observed the following three factors had remained constant over that period. Firstly, he conceded the continuing difficulty of convincing the general public that open markets benefit them. Samuelson put it well when he said that free trade is the best example in the social sciences of an argument which is both true and not trivial. We accept the notion of comparative advantage when we pay a professional to cut our hair or service our car, but we are reluctant to accept the same concept of comparative advantage when it comes to where things should be made. The case for free trade must be made and remade with every successive generation, rather than taken for granted.

Secondly, despite recent reverses, we are still in a world in which tariffs remain relatively low compared to much of the 20th century. Industrial tariffs average around 5% for many countries, despite threats of international trade wars.

Thirdly, the trade agenda has constantly broadened to include a range of issues over the last 20 years. There were debates about investment treaties and intellectual property and calls to bring environmental issues into trade deals at the Seattle World Trade Organization Summit in 1999 and the trend continues today. Trade deliberations are increasingly divorced from what economists would term their core purpose of 'first, best trade negotiations' to bring down barriers and lower import taxes. These deals therefore have wider ramifications. Agreements amend the degree of intellectual property protection across borders, sometimes to the advantage of one country at the expense of another, which can pose significant challenges for nations and economies alike.

The expansion of the trade agenda has continued from issues of investment, the environment and intellectual property to encompass labour standards - introduced to the Trans-Pacific Partnership by Barack Obama – and immigration provisions. The public debate on the Australia-China free trade agreement saw bipartisan consensus on the trading of goods, although political heat was generated by changes to immigration provisions. Questions about the extent of labour market testing required and which sectors would be allowed to have labour brought in attracted considerable attention and will continue to do so in other agreements. So, while the core agenda has been achieved, with tariffs now 5% rather than the 20% of the mid-20th century, the trade agenda is far more crowded with issues than it used to be.

• Current changes in international trade

Dr Leigh noted several other changes over his career as well, not least the rampant growth in international services. Australia still undertakes more trade in goods than services, but the value of the latter is rapidly catching up. Services now account for a quarter of global trade, and their growth is still accelerating. Australia exports education, law and architectural services to the rest of the world, and the best Sydney schools, lawyers and design firms service clients around the Asia Pacific. The American stock market is now dominated by giant services companies, rather than the manufacturing giants of the past.

Another major change is the increasing importance of tax. Many people around the world feel that global technology and service companies are not paying their full share of tax on their vast revenues, however much they enjoy the goods and services of Apple, Google, Facebook and Amazon. These companies channel their massive wealth through tax havens to avoid paying national taxes in ways which

"The case for free trade must be made and remade with every successive generation, rather than taken for granted."

- The Hon. Dr Andrew Leigh MP -



begin to undermine the legitimacy of the global trading system. When people see multinational firms ignoring national rules and exploiting tax loopholes that are not available to local small businesses, they lose their trust in global trade and are less inclined to acknowledge its benefits.

Looking to Asia

The conversation on digital trade is a vital one for Australia's future. The question of where the jobs of the future will be created is often raised at community forums, but economists are better at identifying the jobs which will disappear. Jobs will come from plugging into Asian supply chains, exploiting the region's growing prosperity and by ensuring that more Australians have the skills to meet the needs of the expanding Asian middle class.

Labor has produced a *Future Asia* policy which advocates better understanding of Asia on company boards and more teaching of Asian languages to Australian pupils. The policy builds on the *Australia in the Asian Century* white paper published in 2012 and engages with business to explore ways to increase Australian prosperity in the future. Labor is serious about its commitment to Asia, as regional trade in goods and services is the key to creating Australian jobs and prosperity.

Chair Tanya Stoianoff thanked Dr Leigh for his address and introduced DFAT trade negotiator Dominic Trindade to talk about digital trade rules.

"Digital Trade Rules"

Mr Dominic Trindade

Assistant Secretary
Services, Investment and
Intellectual Property Branch
Department of Foreign Affairs and Trade

Mr Trindade said the Department of Foreign Affairs and Trade saw the GAP Summit as an opportunity to hear from delegates as well as inform them about international digital trade negotiations. The views delegates express can help shape DFAT's policies into the future.

The GAP debate is timely, as the international system of multilateral trade and a rules-based order is strained by tensions between the world's major economies. Australia cannot be a passive victim of outcomes shaped by other nations and must maintain its strong advocacy of free trade and the rules-based order. E-commerce is one of the sectors where that system can demonstrate its relevance to businesses, civil society and other interests and stakeholders.

International agreements must keep pace with e-commerce

The idea of 'playing fair' through digital trade rules assumes that a balance can be found between protecting consumers and their privacy and allowing businesses to operate and grow. International rules and standards therefore try to remove barriers to business while maintaining consumer, privacy and cyber protections, and Australia is playing a leading role in their formation.

Australia recognises that international trade rules are belatedly trying to catch up to current technology and business practice. The WTO rules negotiated in the Doha and Uruguay rounds assumed trade involving shipping containers of finished goods or raw commodities around the world, but trade in digital services is an increasingly important part of global commerce and requires new concepts and frameworks. Trade negotiators have lagged behind this reality and are now trying to develop rules which reflect modern digital business activities. Input from Summit delegates can help ensure that Australian negotiators stay relevant to current and future business needs.

Trade negotiators now wrestle with new concepts of data flows and localisation which they have not tackled until recently. National commitments to adhere to international industry standards can help in this regard, as 'soft' rule-making can secure understandings from nations unwilling to accept 'hard' rules on data location. This approach allows businesses to work towards the harmonisation of standards and approaches.

Civil society and consumers take privacy and the protection of personal information very seriously, and Australian negotiators must always bear their wishes in mind. Australia therefore seeks international agreement on issues like transparency

to ensure digital trade rules promote consumer trust as well as business development. Australia's negotiators also want an international framework which drives efficiency, intensifies competition and allows Australian businesses to innovate. These goals have been pursued in a variety of ways, not least the free trade agreements which Australia has negotiated with trading partners.

Trans-Pacific Partnership 11

The Trans-Pacific Partnership II agreement is currently before the Federal Parliament, and Australia aims to be one of the first signatories to ratify it into law³. The agreement emerged from the original TPP and required a great deal of effort by the remaining members to resurrect, after President Trump withdrew the USA from the original treaty. The TPP-II will enter into force and begin to generate results, once six of the signatories pass it into law.

TPP-II contains some of the world's most modern rules on digital trade and e-commerce. It includes provisions on data flows and localisation unseen in previous multilateral agreements, as well as commitments on internet access for electronic commerce. It also contains provisions on source code to ensure that disclosure is not a condition of import, distribution or sale. This is another issue which is highly relevant to business but has not been addressed in traditional international trade negotiations or multilateral processes before.

TPP-II also demands a high standard of obligations to ensure electronic trade related practices are efficient and fair and identifies areas for cooperation on cyber security. Awareness of the lag between the development of new technology and rules to govern its use was a critical factor when negotiating the TPP-II and will be factored into future trade deals. Technology and business practice move faster than

"Australia seeks international agreement on issues like transparency to ensure digital trade rules promote consumer trust as well as business development. Negotiators also want an international framework which drives efficiency, intensifies competition and allows Australian businesses to innovate."





the rules designed to control them, and future negotiators should not legislate for yesterday's trading environment based on obsolete technological assumptions.

• The slow pace of the WTO

The WTO is a 'slow-moving beast', hampered by its size in an agile trading and technological environment. It is a large, consensus-based forum in which representatives from both developed and developing economies all have an equal voice. This means the WTO has been slow to develop modern rules and approaches to digital trade and e-commerce.

Australia has tried to take the lead and has worked to put these issues at the top of the Geneva agenda. At the last WTO ministerial conference in December 2017, Australia pushed for the digital and e-commerce negotiations to become part of the formal discussion. Half the WTO membership have signed on to become part of that discussion, as they represent 75% of world trade. This figure approaches the critical mass required to have substantive negotiations, although that point has not yet been reached.

Discussions which may lead to formal negotiations continue every month in Geneva, and Australian negotiators are trying to accelerate that process and hold formal negotiations in 2019. These talks will have to balance the needs of developed and developing

economies and could help address the 'digital divide' faced by developing nations. New technology offers them a chance to overcome their lack of legacy infrastructure and leapfrog historic trade impediments, and Australia will support its rule-making activities with aid and trade development programmes in the Pacific and elsewhere.

In closing, Mr Trindade once again sought feedback from Summit delegates and stakeholders to inform future Australian trade negotiations.

Tanya Stoianoff thanked Mr Trindade and introduced Michael Lim, Head of Trade and Supply Chain at the ANZ Bank, to discuss the operational opportunities of digitised trade processes for Australian exporters.

"Global Trade Digitisation – An Opportunity for Australia"

Michael Lim

Head of Trade and Supply Chain ANZ Bank

Mr Lim said that international trade is still largely administered through paper transactions. ANZ processes the paperwork for 70,000 transactions a month across 34 countries, and the bills of lading, freight forwarding and customs certificates and

inspection documents add up to a substantial pile of paper. The administrative burden for Australian exporters is immense, as international trade administration lags about 20 years behind other industries which have digitised their operations.

This old-fashioned state of affairs is a product of commercial, rather than technological issues, given the challenge of getting all stakeholders to collaborate to digitise their procedures and remove frictional costs. Exporters must deal with trucking and shipping companies, ports, customs and inspection certificates at home and abroad, and digitising these procedures would mean that every stakeholder would have to collaborate in terms of procedures, standards and cyber security.

Slow progress towards trade document digitisation has several consequences for Australian exporters. Frictional costs are generated for firms which must compile and physically shift large amounts of paper to banks, agencies and trading partners by courier. One Australian beetroot exporter, for example, incurs administrative costs of US\$12,000 for each shipment, \$8,000 of which is generated this side of the border.

Those documents must then be checked by bank staff for compliance to sanctions, fraud and money laundering regulations. Buyers must also commit teams of people to process the paperwork and ensure it complies with their requirements. The reliance on paper increases the risk of fraud and in turn limits financing for small and medium-sized exporters. Paper is also a much slower way to communicate. While a digital bill of lading from a shipping company could pass through an entire supply chain in three minutes, a trail of paper might take a week.

Stacks of paper documents also create a barrier to entry for new fintech firms or alternate financiers that may have a higher level of risk appetite than banks. Banks have the infrastructure, resources and experience to process paperwork in an industrialised manner, while new entrants are understandably unlikely to invest in replicating such manual processes. Digitisation will assist in removing these barriers to entry and encourage alternate financiers to enter the sector, creating more funding options for Australian SMEs. Digitisation will also reduce the risk of fraud potentially increasing the appetite of established banks.

• Progress towards Asia-Pacific digitisation

Change is finally underway in the Asia-Pacific. The monetary authority of Singapore is creating a 'single window' or portal to provide all the documentation which importers and exporters require in digital form. It will initially include banks and then shipping companies, freight forwarders and insurers in the future. ANZ is working to integrate this system into its own systems and operations. The Hong Kong Monetary Authority (HKMA) is also building a blockchain-based open account trade platform, and the ANZ is one of seven banks working with the HKMA to create it.

In August 2018, Singapore announced it would work with the UAE regulator to connect their respective platforms, and Hong Kong and Singapore had announced their intention to connect their trade platforms in October 2017. Hong Kong is also working to connect to China. A consortium of banks in Korea and Japan have approached Singapore and Hong Kong to join the Global Trade Connectivity Network (GTCN), and all these moves are increasing the momentum towards digital administration to reduce frictional costs and improve efficiency.

This is the best momentum towards digitisation in decades, with regulators in different markets leading this change. Singapore is driving its project as a full



"Australia should seize the chance to join the digitisation of trade to boost the economy and help SMEs export. Regional digital platforms will benefit Australia's SMEs more than the large corporates and multinationals."

- Michael Lim -

government initiative by building the platform and inviting stakeholders to connect to it, while Hong Kong is building its system through a public-private partnership.

The benefits for national regulators is the centralised, digital platforms because 80% of current international trade is conducted via open account, which means the stack of documentation goes directly from the supplier to the end buyer. This means the data on that paper is not available to banks, regulators, crime authorities and other agencies. They only see the final payment. Digitisation not only reduces frictional costs but creates a pool of data which the authorities can analyse through algorithms to uncover patterns and anomalies, identify money laundering and other types of financial crime.

The opportunities and threats of new platforms

These changes can be viewed as a material opportunity or a threat for Australia. However, Australia should seize the chance to join the digitisation of trade to boost the economy and help SMEs export. Regional digital platforms will benefit Australia's SMEs more than the large corporates and multinationals, as large companies generally have the resources and scale required to invest in proprietary solutions which connect directly to their large buyers and suppliers.

Australia must move quickly, as Asian buyers will increasingly prefer suppliers which can deliver data directly to their ERP platform, rather than deal in cumbersome paper intensive processes. Australia will be at a competitive disadvantage, if it does not embrace digitisation in this way. Australia will also be a 'soft target' for international criminals, if the regulators of other countries become more adept at detecting financial crime through sophisticated analysis of their digital data while Australia lags behind.

Mr Lim called for faster progress towards the standardisation and digitisation of government and commercial documents for Australian importers and exporters. The concept of a 'single window' project should also be clarified by government, in terms of what appetite the government has for developing a Singapore or Hong Kong style project. Alternatively, does the government see its role as solely delivering digitised documents? Either way, this is important to determining where the private sector begins, as well as ensuring any national and regional platforms are interoperable. Australia must engage with Asian markets driving towards digital transformation to reap the benefits it will create.

DISCUSSION

Session Chair Tanya Stoianoff invited comments on these and other topics from attendees.

Investor-state dispute settlement

TPP-II does not sufficiently safeguard investor-state dispute settlement (ISDS) in the eyes of some commentators. One speaker thought the agreement's dispute resolution procedures were extra-judicial, rightly criticised by the Chief Justice of the Australian High Court. He argued that greater safeguards for Australia should be sought through the ISDS process in the future.

The next speaker shared the concern regarding investor-state dispute clauses but noted that TPP-II cannot be amended by Parliament and must be accepted or rejected outright. The Hong Kong dispute about plain-packaged tobacco shows the potential for abuse. The WTO dispute process is well-regarded and could be used as a trusted third party to settle disputes within other trade agreements but is currently threatened by the Trump administration's failure to appoint new members.

Bilateral investment agreements with a number of other nations have dispute resolution clauses which have never been used against Australia, with the one opportunistic exception by the tobacco lobby. There may be no way to prevent highly motivated, well-resourced industries looking to leverage any opportunities they may see in such agreements, while Australia has successfully used ISDS in disputes with other countries. Some industry sectors have backed the provisions, particularly those engaging in foreign investment. The new TPP-11 rules were informed by Australia's experiences in dealing with the tobacco dispute through the WTO system and offer better set of ISDS disciplines than previous frameworks.

Contractual access to source code

Banning contractual terms which demand access to source code might be, in theory, a barrier to trade. It might also be the result of yet another incursion by major corporations aimed at keeping control of their ecosystem. When a Melbourne hospital negotiated access to the source code used by Cerner, formerly one of the largest and most powerful health IT corporations, the hospital was able to change suppliers at a later date, rather than be held hostage by the company. A number of other agencies and hospitals have discovered to their cost that not having access to the source code makes it very difficult and expensive to change to a more capable supplier.

The right balance regarding data protection can be hard to judge, given the need to protect consumers while removing impediments to business. Public health authorities have often been given broad exemptions in international agreements, but this should not cloak the imposition of protectionist measures.

Regulatory lag

The lag between technologically enabled changes in business practice and subsequent regulation can be seen in the belated efforts to tax digital trade. Taxation is a hallmark of civilization and central to questions of 'playing fair in digital trade'. The explosion of digital trade may necessitate genuine innovation in tax collection.

Some public finance economists believe the system can be fixed by closing its loopholes, while others take the more extreme view that traditional corporate tax revenue will inevitably vanish as we move to a world of weightless production. There is still value in having corporation tax and raising a non-trivial share of revenue from major companies;

however, there must be more concerted global action to control the instruments multinationals use to shift profits off shore and avoid taxation. While some debt deduction loopholes have been tightened, the Paris School of Economics estimates that up to 40% of multinational corporate profits are still diverted to tax havens.

Broader reform proposals involving formula apportionment might therefore also be considered. US states do not levy corporation taxes like Australia does, for example, basing their company tax demands on a formula involving both their number of employees and their sales in the state. It has been suggested this approach could be adopted across the OECD⁴; however, there is no clear and compelling model for its implementation.

The digitisation of trade processes would create a clearer and more easily accessible audit trail of where transactions took place, and where funds are moving to, allowing them to be taxed more effectively. This is another reason why a number of regulators are interested in blockchain – distributed ledger technology – as it creates a clear record of every person or party who has touched a transaction from beginning to end.

The imposition of tax on online consumer purchases from abroad was discussed in Australia as long ago as 2008, but levies were only introduced in 2017. Regulators and governments will always lag behind changes in business and consumer activity and must be reactive, rather than proactive, in their measures. However, economists would question whether it is always best for regulators to be ahead of new technology, as their attention and resources might be better directed to technologies which are already being used. The imposition of low-value threshold taxes perhaps came a couple of years too late, but the delay allowed their imposition to be based on a better understanding of the emerging digital economy.

This 'wait and see' argument breaks down when faced with a technological challenge which could run out of control if regulators don not intervene in time, and Al could be one such issue. The prospect of a technological singularity or advanced biotechnology could move from science fiction to fact, and technology entrepreneur Elon Musk, among others, has called for regulators to get ahead of this issue.

The development of policy by government bureaucracies in a free society will always be relatively slow, given their need to take a range of conflicting and contested stakeholder and public views into account. Authoritarian governments are able to move faster but may still fail to keep pace. China has one of the fastest growing economies on Earth, and its bureaucracy cannot keep pace with the rate of change, despite the ability of its leadership to decide and implement policy without consultation or consent.

Businesses must be part of these conversations to ensure the development of best practice through 'soft regulation' and the harmonisation of business processes. Industry guidelines can be negotiated and implemented more easily than national trade agreements, and all stakeholders should work together on these issues today because they can take years to reach the Geneva WTO negotiations. Business can move faster by working together and having collaborative discussions with regulators than governments can alone.

The implementation of technology

While blockchain has clear potential, the obsession with it as a solution to every issue could delay steps towards digitisation rather than progress them. Several older technologies which date back 20 years could deliver significant benefits by reducing operational costs, improving regulatory compliance

and improving policy outcomes in global trade if they were implemented more broadly. The focus on emerging but unproven technologies should not delay the wider adoption of other methods with a record of success.

Doubts over blockchain are often raised, because the technology has not been scaled or taken into production in any sort of industrialised manner. There is debate around whether blockchain is truly scaleable, given the amount of data it generates. However, large projects are being developed and will hit the market over the next six to twelve months. The HKMA platform uses blockchain, and its first project will go live in October 2018 after 18 months of development, an impressive speed to market.

One of the Australian banks is digitising paper bank guarantees through distributed ledgers and aims to conduct its first pilot transaction in November 2018. The bank surveyed a range of technologies for its modernisation of bank guarantees, rather than jump straight to a distributed ledger solution. It investigated different means to solve the problem of physically handling paper, financial fraud and correcting losses or mistakes. It also looked at existing digital trade platforms and intermediaries, but they were all a means of communicating that the guarantee existed to the other party, rather than changing the process as a whole.

In contrast, the distributed ledger generates an encrypted digital guarantee which completely eliminates paper from the process. Blockchain is not slowing banking transition but accelerates it instead.

Wider participation in trade negotiations

The digitisation of global trade documents increases efficiency, reduces costs, improves access and expands the customer base. Buyers can choose from a wider portfolio of suppliers and improve the

integrity of their supply chain. SMEs will have more access to finance, while governments will be able to fight financial crime and close tax loopholes.

Blockchain and other solutions can create a global ecosystem which encourages stakeholder collaboration and enables interoperability between different national and regional platforms. However, the lack of an international agreement or network to formally aggregate this self-interest means the global trading community lacks confidence that change is going to happen, and so individual firms and stakeholders are unwilling to commit resources to join unproven systems. Opportunities to ensure that all key stakeholders have their voice heard and ways to accelerate this apparently obvious solution should be identified and implemented as a matter of urgency.



Better business engagement in international trade negotiations would ensure they became more relevant to current commercial needs, but the secrecy surrounding them means that businesses are often locked out. Sensitive negotiations require some degree of confidentiality, but appropriate use of confidentiality agreements could bring more people to the table. Parliamentarians in other countries may have some influence over negotiations as they take place, but their Australian counterparts have little input until treaties must be ratified or rejected.

The government could ask the Productivity
Commission to model the national economic benefit
of new trade agreements. The Productivity
Commission has a proud record of trade
liberalisation and is well-placed to consider issues
such as the effect of extending patent and copyright
terms on the Australian economy.



Confidentiality around trade negotiations is historically maintained until the point when the treaty is signed. Opening the process to earlier debate would create a challenge for democratic nations, as the government's attention would be directed to the near impossible task of creating a national consensus on its aims and objectives. The arguments between disparate political, civil, industrial and other lobby groups could also be exploited by foreign powers who could mobilise support for positions which benefit them through domestic actors.

While the European Union (EU) is sometimes cited as a model of openness, its apparent transparency is largely a product of its structure, as it must first achieve consensus among its 27 members through a complicated internal political process before it can negotiate with outside entities. There is no secret about the EU's position, because each member country has its own internal debate and public stance on every issue.

Australia is negotiating a free trade agreement with the EU, and the European Commission will periodically publish texts which they have submitted to the table. This does not prove there is more direct public participation in policy making in the EU—indeed, the views of some member states are more powerful than others. The United States tends to include industry and lobby representatives in their formal delegations, but they invariably promote their own interests, rather than closing the democratic deficit.

Potential GAP Taskforce

Businesses demand standards, connectivity and certainty to facilitate investment, reduce risk and facilitate transactions. Customers want secure but frictionless ways to buy goods and services and will gravitate towards platforms which offer seamless interactions. Australia should create a globally competitive platform which handles both sides of these issues and allows both business and public to prosper. A GAP taskforce involving business and government figures could explore these ideas through the 'Second Track' process.

The taskforce should remain pragmatic in its approach, looking for small domestic "wins" as well as advocating better global standards. Breaking the task down into bite-sized pieces and identifying particular standards which specific markets might adopt would offer a promising beginning.

• A digital trade platform for Australia

The paperwork involved in shipping remains a current issue, but 45 years ago, the banking industry used a similar paper system to transfer money between countries. The idea of SWIFT⁵ code and then BIC⁶ originated in Belgium: that small European nation became the world's clearing house by offering transparent transactions. Australia could lead the world today by creating the equivalents of SWIFT/BIC for the administration of the global shipping industry.

Banks would back the development of a new system, but it is impossible to digitise an industry supply chain without the consent and active participation of its numerous stakeholders. Several major organisations are already developing their own systems. Maersk, the world's largest container shipping company, has a project underway with IBM to digitise its bills of lading, and ANZ is part of an international bank consortium which covers 125 countries and refers to itself as "Swift for trade". SWIFT itself is engaged in that discussion. Moves towards more modern systems are therefore active behind the scenes, but not fully public yet.

The barrier preventing modernisation for the last 40 years has been commercial rather than technological. Systems such as Bolero and ESDoc were created to provide electronic shipping documentation but have not achieved scale, and any link in the supply chain which still relies on paper destroys the efficiency of the whole chain. While pushing for global standards and consistency as an ultimate goal, reformers should look for initial bite-sized wins and begin by digitising key trade flows between particular countries or markets. Hong Kong, Singapore, United Arab Emirates and China are already building a spider-web of networks, and if the I25-member bank consortium was added to that, a significant network would form. ASEAN⁷ is likely to join that

system in the future, rather than create its own alternative, and this would create a *de facto* data exchange standard across Asia, which in turn would add more weight to drive towards a global standard.

Promoting "Brand Australia"

Government has an important role to play in jurisdictional issues and consumer protection, but its market-making potential should also be addressed. Technology and network innovators should be encouraged to shape the policy debate, and the country should recognise and build on the innovations of smaller Australian firms as well as the major corporate players. Australia has proved its ability to punch above its weight in terms of invention, but 'makers' should also be encouraged to develop their own standards which could then inform government legislation and industrial norms.

Different parts of government play two important but potentially contradictory roles in terms of innovation. Various national and state agencies are created to encourage start-ups, provide grants and target tax breaks, while other departments focus on the implications of data sharing for citizens and may slow the pace of innovation in the name of privacy protection or other potential consequences. Venture capitalist and entrepreneur Danny Gilligan terms these the 'accelerator' and 'brake' roles, and while it is perfectly reasonable for government to pursue both of these objectives, both pedals are continually floored by different departments working independent of the other, rather than a single driver using one or the other as appropriate in a car. Singapore overcomes this problem by putting the privacy regulators next to the innovators in the same organisation, allowing a single body to think about both sides of any issue in a holistic and coordinated manner.

Singapore benefits from being a small country which can act as a test tube for new approaches. Pubic servants in larger nations like Australia must consult with a wider range of stakeholders, keep up to date with industry developments, and remain in touch with a host of key players. The future will see more virtual networking, rather than physical meetings, but the problem of balancing sufficient speed and consultation remains.

Remembering the 'human element'

The makers of collaboration software should think hard about how to bring people together, as well as the technology itself. Human systems are complex, but the human element is notably missing from the debate. Trade exists because people want to exchange value in some way, and value is created when people have needs they want filled, desires they want met, or ideas they want realised. The Summit's topics of trust, privacy, collaboration and self-interest are all human traits, rather than technological problems. Steps should therefore be taken to think through the human aspects of the digital trade challenges facing the world today.



People are passionate about international trade because it is the means by which many countries have been able to lift their living standards out of poverty. While the Summit has discussed the digitisation of trade in technical terms, the human impacts it will have by reducing costs and increasing interaction will be immense. Its potential to release more finance for developing markets and communities has been acknowledged by the UN, International Chamber of Commerce and other international bodies who have studies the impact of global trade on improving living standards and reducing poverty around the world.

The digitisation of physical trade documents offers every link in the supply chain greater visibility, lower costs, fewer barriers and less risk. This in turn attracts alternative financiers to fill the gaps in developing countries and niche markets which more highly regulated banks are not able to cover.

Countries with significant trading relationships are much less likely to go to war than those with few commercial ties. A key part of Labor's *Future Asia* policy involves broadening and strengthening Australia's regional relationships at all levels. In the government realm, this will include the 2+2 Indonesian and Australian economic dialogue, meetings of ASEAN finance ministers and the creation of an ASEAN-Australia studies centre, as well as more frequent and substantial ministerial visits.

Labor also plans a stocktake of the Australian diaspora to analyse how it can be engaged with Austrade's export work. Encouraging Australian students to study more frequently in Southeast Asia and steps to ensure continued engagement with Asian students in Australian universities will also tighten cultural and economic links between Australia and Asia. Improving foreign language skills and boosting knowledge about Asia on company boards will also foster the cross-border relationships which facilitate trade. The whole purpose of the enterprise is not the pursuit of technology for its own sake, but to use it as a means to boost prosperity, improve living standards and create a safer world.

Even small companies in regional Australia are affected by foreign trade and investment issues, including exports and tourism. Young people in high schools increasingly see their future as connected to trade in China and Asia as a whole. More children are studying Asian languages, and schools should encourage all young people to consider how their community fits into the broader trade and investment environment from an early age.

Building industry standards

An accelerating rate of innovation in technology and supply chain transactions, government regulation and governance is being seen in every industrial sector. The use of autonomous systems is particularly advanced in the mining technology and services sector, but these changes are so rapid and complex, that every time the industry attempts to devise an interoperability standard, it fails, as the protocol is rendered obsolete by events. The Global Mining Guidelines Group is developing process standards for the industry which large firms and sectors can support. Industry should play an important role in working towards solutions and cannot rely on governments to create regulatory frameworks alone.

There is a great deal of industry engagement and collaboration in South Africa, for example, because its government plays a minimal role in their affairs.

Australia tends to rely too much on government, and its industry should take greater responsibility for standards

creation. Industry can aggregate and accelerate pathways which create opportunities for later regulation relevant to their fast-changing needs.

Blockchain

Australia sits between East and West and must also balance the human aspects of social responsibility and individual creativity in sectors such as blockchain development. There is a tension between having a stable, wealthy but less innovative country and the wish to switch to an innovation-driven but riskier economy. More pathways to support creativity and innovation at the grassroots would pay dividends. DFAT recently funded an Australian firm to run a global blockchain hackathon in Shanghai⁸; such events strengthen human relationships as well as the spread of ideas. Fostering grassroots relationships, as well as those between governments and major corporates, is vital in an ever-more interconnected world.



Session Summary

The Summit's opening session had discussed a raft of issues, from trading safeguards and contractual terms, WTO processes and blockchain to creating standards and improving connectivity. Attendees had also discussed the role stakeholders can play in framing the debate through formal dialogues and virtual network, and welcomed the idea of a future GAP taskforce on digital trade.



SESSION TWO

'Digital Trade Opportunities for Our Region'

Catherine Fritz Kalish introduced the Hon. Cr Philip Ruddock to chair the second session.

The Hon. Cr Philip Ruddock MP

Mayor Hornsby Shire Council President NSW Liberal Party

Cr Ruddock welcomed the opportunity to discuss the future of digital trade. The previous day's Pacific Connect Forum had offered a diverse range of people from the region a chance to meet and discuss common issues. Cr Ruddock recalled the eagerness of people he had seen around the world to embrace electronic devices regardless of their living standards or infrastructure. Young people in developing countries are as interested in electronic gadgets as their Australian peers, and Cr Ruddock noted the ability of his children and grandchildren to use the flood of information they received through electronic means in positive ways.

Australians are innovative people, not least because the country has a small population which had to improvise to prosper. American shipbuilders will use antiquated equipment because they believe in the ability of themselves and their country to do anything they want to, regardless of the tools to hand. Unlike Americans, Australians lack confidence in themselves and their own talents and so do not use their full potential. Extraordinarily inventive Australians have not seen their ideas taken up, promoted and used in this country because the nation does not believe in itself.

Cr Ruddock summarised the speeches of the Opening Diner and Session One and hoped the second session would focus on digital opportunities in Australia's region. He then welcomed the first speaker, David Hazlehurst, to talk about Austrade's current and future efforts to boost exports.

"Digital Trade Opportunities for Our Region"

David Hazlehurst

Deputy CEO & Executive Director Business, Partnerships & Support Austrade

Mr Hazlehurst said Austrade encourages the government to support its exporting clients and foreign investments, but its main aim, as Australia's export promotion and investment attraction agency, is to help businesses make money. Austrade helps businesses choose the best markets to target for exports and offers practical advice on foreign business conditions, culture and practice and different regulatory environments.

While Austrade connects Australian businesses with potential foreign customers in 83 locations around the world, recent changes in the global trading environment have encouraged the organisation to examine its relevance to their needs.

Mr Hazlehurst stressed his intention to listen to delegates as well as address them and immerse himself in the issues they raised. He then offered three main points in his speech, two on the commercial opportunities which Austrade sees and the third on the importance of creating the right environment for digital trade to flourish.

The growth of e-commerce

While digital trade encompasses more than ecommerce, e-commence is still a 'big deal'. Australians spent \$21.3 billion online in 2017, and Australia should grasp the opportunity to increase its share of a global e-commerce market growing as much as 27% every year. However, Australia still lags behind China, the USA and the UK in terms of e-commerce participation. Only 5% of retail sales occur online in Australia, compared to more than 10% in the UK and the USA and nearly 30% in China.

China is Australia's largest market for e-commerce exports, with sales of a billion dollars a year. Australian products are highly regarded by Chinese consumers, ranking third in terms of preference behind Japan and the USA, according to Alibaba, China's largest e-commerce platform. The most popular Australian products in China are baby care supplies, health supplements, skincare, fashion and food.

However, Australia's potential e-commerce market is much wider than China. Austrade has published a number of guides to e-commerce in other nations and is looking around the world to create more diverse opportunities for Australian firms. Korea, Indonesia, Japan, Malaysia and Thailand all have domestic e-commerce platforms which Australian firms should engage with.

Digital trade is more than e-commerce

While e-commerce is important, digital trade encompasses a much wider realm of activities. Vast cross-border flows of data create digital opportunities in almost every sector of the economy. Amazon is the poster child of e-commerce through its online sales of goods and services. The firm has topped a trillion dollars in market value, and some commentators believe it will reach 2 trillion before tech giant Apple. However,

Amazon offers much more than e-commerce, and Amazon Web Services is comfortably the largest provider of cloud infrastructure services in the world.

Cross-border data flows already generate more economic value than global trade in physical goods, a remarkable fact considering the sector barely existed 20 years ago. This data contains everything from transactions, searches and video to communication and intra-company traffic. Australian opportunities for digital trade cover the entire country, and new 'techs' are everywhere – from fintech, agtech, regtech, biotech to medtech, foodtech, sportstech and edtech. Cyber security is another important sector, not just as a defence against criminality, but as an opportunity for Australian service provision. In a previous era, Austrade might have had a single tech team, but now it must have tech savvy 'austraders' in every sector.

There are opportunities for both large and small Australian businesses. In terms of fintech at the 'big end of town', the major banks are testing artificial intelligence to identify risk and improve regulatory compliance, but regtech start-ups are also attracting significant interest and investment. MaxID uses machine learning to analyse mortgage customers, while Identitii has developed software that makes the swift system easier to audit. Australia has become a global centre of excellence for blockchain, and 37 local leaders in the sector are jetting to Shanghai for a bootcamp at Austrade's 'landing pad' before attending the 4th Global Blockchain Summit.

Agtech is another focus for Austrade. It encompasses various technologies under the heading of precision agriculture, but also food provenance, the importance of which was highlighted in the recent honey adulteration scandal. Counterfeit food is one of the biggest challenges facing Australia's primary producers, as unethical operators take



"Australian opportunities for digital trade cover the entire country, and new 'techs' are everywhere — from fintech, agtech, regtech, biotech to medtech, foodtech, sportstech and edtech. In a previous era, Austrade might have had a single tech team, but now it must have tech savvy 'austraders' in every sector."

- David Hazlehurst -

advantage of our strong reputation for quality food by putting our name on inferior products sourced elsewhere. Fortunately, their days may be numbered, as suppliers can now trace how and where their produce is used through a global platform created by Beston, an Australian agtech company, which uses technology developed by CSIRO. Customers can also trace the origins and verify the authenticity of the food they buy online and in shops and markets.

Creating a better environment for digital trade

Mr Hazlehurst stressed the importance of creating and sustaining an environment in which digital trade can flourish. Australia's International Cyber Engagement Strategy points to the critical importance of five factors, many of which were discussed at the Summit. The first involves shaping global rules and standards to ensure openness, trust, certainty and a consistent framework for digital trade. The second calls for engagement in bilateral and multilateral free trade agreements and securing ambitious digital trade rules within them. Thirdly, Australia should support connectivity improvements and access to the internet across the Indo-Pacific. Fourthly, the Strategy calls for progress on digitising trade processes, such as creating single portals for trade documentation. Finally, it stresses the importance of collaboration, as Australia is too small to go it alone.

Austrade has played its part by establishing 'landing pads' in San Francisco, Berlin, Tel Aviv, Shanghai and Singapore to help new technology companies grow. One of these start-ups, the video production platform Biteable, recently secured \$2.8 million in capital funding in Australia.

Mr Hazlehurst chose an optimistic yet challenging note on which to close. There are clear opportunities across the economy for digital trade, and Australia has distinct advantages it can draw on, to win more than its share. Several tech hubs lie within a five-minute walk of NSW Parliament House itself, but Australia must compete in a fiercely contested global market. There are countless tech centres beyond the bay area of San Francisco in the USA alone, let alone the rest of the world. Shanghai, Singapore, Kuala Lumpur and a host of other Asian cities are now incredibly vibrant centres of innovation and success in the future will not happen because Australia is the 'lucky country' any more.

Cr Ruddock thanked Mr Hazlehurst and introduced John Ball to discuss the Google's role in entrepreneurship and technology.

"Born Local, Competing Globally"

Iohn Ball

Director, Sales, Australia and New Zealand Google Australia

Mr Ball recalled his 33 years in the technology sector, outlined his current role at Google and suggested a path for future developments in the industry. Most people are familiar with the Google search bar, but Alphabet, its parent company, has many other interests which could transform other spheres.

The impact of first experiences

Waymo is developing driverless cars, and their mass introduction may be closer than we think. Project Wing is delivering products by drones, while Loon will provide telecommunications through balloons in the stratosphere. Verily uses technology to improve health knowledge and prevent, detect and manage disease, while Calico looks at ways to extend human life. The inventor of optical character recognition (OCR), Ray Kurzweil, now works in machine learning, Al and health science at Google and believes that anyone who survives the next ten years should be good for the next fifty. Overall, a slew of new technologies will use machine learning and Al to process massive amounts of data and help individuals achieve better outcomes.

Mr Ball said his career in technology began in 1985 and he remembered how people's first experiences of colour television, personal computers and mobile phones left a deep impression, particularly when mobile devices freed them from 'the wall'. The cumbersome cell phones of the late 1980s were a rare sight, but few people now leave home without one. Indeed, people panic if their phone is not charged, and plug it in last thing at night to keep it ready.

Google is now working to deliver the next wave of 'first experiences' and the first time people ride in a driverless car or have a package delivered by a drone will be just as exciting as the past. There will also be many more 'firsts' in our lifetimes, which people have not yet imagined, to change the way we think about trade and how we interact with each other every day.

The benefits of digital marketing

The pace of change in marketing has been immense in recent decades. If a small business wanted to attract new customers in the 1980s, it would put an advert in the local Yellow Pages with five A's in front of their name to be the first entry in their section. Larger firms might use newspaper ads or TV, but they remained bound within their area, and were comfortable with that model as there was no alternative.

Twenty-first century businesses have been freed by the internet to find customers in new ways and, importantly, technology now allows prospective customers to find them. Firms are no longer restricted to their local geography, and can secure new customers across their state, their nation or the whole world. Small businesses now have the freedom to compete on the same playing field as much larger firms and find new customers anywhere.

Deloitte's *Connected Small Businesses* reports for Access Economics in 2015, 2016 and 2017 trace the increasing engagement of small firms with technology. The studies found that companies that engage in digital technologies are 50% more likely to increase revenue than their non-digital peers. They also generate 60% more revenue per employee and are more than eight times more likely to be creating jobs. They are seven times more likely to export and more than 14 times more likely to be innovating



"Google helps young Australian entrepreneurs find market opportunities and expand their skills, but much more could be done to help firms engage and grow. A lack of digital skills and knowledge holds Australians back, not a dearth of desire or the ability to innovate."

- John Ball -

through new products and services. Despite these compelling figures, the latest report notes that many Australian businesses continue to shy from digital engagement due to a lack of skills and knowledge and fear of change and the unknown.

Another report, *The Micro-revolution – the new stakeholders of trade in APAC*, analyses the drivers of change across the Asia-Pacific region. These 'micro-businesses' trade across the region through digital tools and platforms which cut their export costs by 82%, 65% of which derives from cheaper digital marketing tools. These businesses move 29% faster, and 79% of these time savings are driven by their use of cloud services, rather than in-house IT.

Mr Ball said that meeting people who have expanded their businesses through digital marketing is the greatest joy in his job. He explained how a 26-year-old entrepreneur in Brisbane had begun to sell trampolines online with his father at 19 and, seven years after importing his first container of stock, had sold over 22,000 trampolines at Christmas last year, turning over \$50 million. Customers no longer need visit a big box store but can find his firm through Google searches. He now ships trampolines all over the world and has secured a \$100 million contract in the USA to refit jumping stations. He has his own design centre and has lodged 100 patents on trampoline technology, despite knowing nothing about them seven years ago.

Two brothers in Melbourne, whose father used to make bearings for cars, saw a market for thin and light wallets and started their Bellroy business five and a half years ago in a little room in Fitzroy. The product became popular with Chinese customers, and they now turn over \$60 million a year and sell to over a dozen countries. Australian entrepreneurs selling everything from guitars to carpet tiles are now succeeding through their bet on digital sales.

Google helps young Australian entrepreneurs find market opportunities and expand their skills, but much more could be done to help firms engage and grow. A lack of digital skills and knowledge holds Australians back, not a dearth of desire or the ability to innovate. The GAP Summit offers an opportunity for delegates to use their talents to help bridge that gap and help Australia prosper on the back of digital innovation.

Cr Ruddock thanked Mr Ball and invited **Dr John Burgin** and **Priya Kalyanasundaram**, one of India's foremost fintech entrepreneurs, to explain how new payment services are transforming the Indian banking market.

India's Unified Payments Interface

Dr John Burgin, General Manager of Huddle, and Priya Kalyanasundaram, Global Delivery Lead at Cognizant Interactive, explained how India's Unified Payments Interface (UPI)⁹ had been launched by the National Payments Corporation to customers of 21 banks by in 2016. The UPI allows customers to send and receive money instantly and without a fee through their smartphones, using a 'virtual identifier' rather than their actual identity. The platform offers a range of functions, including real-time peer-to-peer transactions and barcode-based in-store payments, as well as the ability to pay bills and settle deliveries.

Any bank with over 1,000 pilot customers, 5,000 transactions, and an 80% or higher success rate can make UPI apps available to the general public through the Google Play store. The platform has helped India increase the penetration of electronic payments, although only 53% of Indians have bank accounts, 233 million Indians have never been to a bank, and most accounts have a balance of zero. Its success is based on the fact that 80% of Indians — over 900 million people - have access to a mobile phone, making it the best way to deliver formal financial services.



Mobile payment products grew rapidly in the aftermath of the November 2016 demonetisation, when the Indian government withdrew around 86% of the cash in circulation, shocking an economy where 99% of transactions were conducted in currency. The trend continued even when normal levels of cash returned to circulation, although the barriers of consumers' continued loyalty to traditional payment methods and their

fragmented acceptance by merchants remain. However, as loyalty programs are integrated into the system and more consumers rely on their mobile wallets for other features like in-app payments, adoption and usage are set to surge again over the next few years.

Some analysts argue that a high turnover of low-value transactions shows that much of the mobile growth is a mirage, with new users likely to abandon digital payments once the many special promotions end. However, other platforms preceded it and still more are set to follow, with Facebook's WhatsApp planning payment integration for its 230 million Indian users. Other mobile money products, such as IMPS¹⁰ transactions and prepaid mobile wallets, have also become popular since demonetisation.

India is already the second largest smartphone market in the world, after China, but the majority of Indians still do not own a mobile phone. Sales are growing rapidly, however, which will only increase the ubiquity and acceptability of mobile payments in the economy.

While promotions have helped to overcome consumers' suspicion of new products, more work needs to be done to encourage merchant acceptance. However, the system's increasing interoperability and popularity with the public means this vast country is making rapid progress towards a 'less cash' - rather than 'cashless' - society.

DISCUSSION

Cr Ruddock thanked the speakers and invited questions and comments from attendees.

Finding Australia's competitive advantage

Australia must find and exploit a competitive advantage to thrive in the new digital marketplace, rather than copy what other countries have done and risk being swamped by larger entities. Australia could emphasise the difference between 'trusted' and 'trustworthy' systems and profit by providing the latter. People's trust of insecure or exploitable systems lies at the root of most cyber security problems, because criminal phishing for identities works because users trust an untrustworthy system. If 'Brand Australia' can be used to certify trustworthy systems, people and processes it will not only find a competitive advantage but achieve 'world domination'.

Consumers around the world know that '.au' stands for something worthwhile in a crowded global marketplace, and Australian industry groups and other stakeholders at the GAP Summit are ideally placed to consider further steps to formalise that position.

Many of the digitally engaged businesses which Austrade works with are from sectors in which Australia already enjoys a competitive advantage, such as premium foods, higher education and mining services. The distinction between 'trusted' and 'trustworthy' platforms is well made, and Australia could create another advantage around the mechanics of digital trade in that regard. However, the creation of a trusted Australian approach should be part of an international effort to ensure that platforms in India, Asia and elsewhere are also trustworthy to improve consumer confidence and combat criminal activity worldwide.

Australia is a world leader in quantum computing, a field which could further transform digital trade and offer Australia another comparative advantage.



Domestic barriers to growth

One Australian software as a service entrepreneur was less concerned by his ability to trade in Europe, Asia and the USA than domestic impediments to expanding his business. Having secured 30 clients and expanded from three to 15 employees in the last eight months, he said he had found the procurement process of his Australian clients to be double that of his customers from Europe and the USA. These delays and complications push his company to seek business abroad, and it concerned him that the Luxembourg government had sought his services before Australian administrations. Australian industry must change its culture to embrace digitisation and cloud services and the speaker called on firms to support, rather than abandon, digital solutions when they face disruptions of service.

Although the world around them has changed, it can take a year or two for executives to understand the importance of digital marketing and infrastructure and Software as a Service (SaaS). Individual Australians are early adopters of new personal

technology such as smartphones, but we are less willing to integrate new technology into business.

Improving STEM skills

Australians' STEM skills trail behind their international peers, despite recent efforts to improve them. Australia's failure to produce young people with STEM qualifications means they are less willing to embrace new technology in the workplace. Educating executives should reduce the amount of persuasion they need to embrace new IT paradigms, as they will already understand concepts such as infrastructure and SaaS.

While there is a role for government, industry must also play its part, and major firms could offer more STEM education. Google recently ran all-day training courses in digital skills in Sydney, Melbourne, Brisbane and Auckland for 2,000 people, but such efforts can be lost if they are not coordinated with other programmes. Progress will be made when the efforts of all stakeholders are aligned towards common training goals.

Encouraging innovation

Modern Australia is a land of immigrants and has attracted foreign entrepreneurial and technological talent through a number of special schemes in recent years. Extending these programmes and establishing a more welcoming regulatory environment for solutions such as blockchain would encourage further skilled immigration and development.

Australia's clean air and water attracts people from polluted parts of China and India, but Australians themselves do not appreciate their environmental assets.

Austrade's landing pads in foreign cities could make use of better funding to expand their operations, but they are only one of the ways in which Austrade supports technology exports. Steps to encourage interpersonal links and connect emerging firms with the needs of established companies could also be productive in the future. Start-ups need customers to grow. Australia only has a globally competitive mining services sector because the mining boom created a market for them.



Massive disruption creates equally large opportunities for innovators and entrepreneurs, but they also need investment capital to turn their ideas into reality. Firms, sectors and nations which do not develop their own solutions will soon have to buy technology and services from other countries in the world. Steps to incubate, invest and innovate are required to ensure that Australia leads the world, rather than follows it. There are many good ideas which are not being funded, and government, industry and other stakeholders should challenge themselves and each other to do more, whether it involves encouraging innovation as a whole, or concentrating on particularly high value areas. Stakeholders should think about where they want to be in 10 years' time, as inaction will set Australia on a downward path.



Some Austrade clients have motivations above and beyond making money for themselves, but whatever their goals, Austrade can only help firms succeed if it understands how digital technology can create new opportunities. Austrade is planning to approach large international corporates in cities where it has 'landing pads' to ask them to identify their problems and then find suitable Australian start-ups and scale-ups to solve them. Austrade's official standing opens corporate doors, and domestic incubators and accelerators have the talent required to take on these opportunities.

The University of NSW produces more technology entrepreneurs than any other institution in Australia. Its partnership with a Chinese accelerator shows the key to success is forging deep relationships between major companies and start-up companies. Al is a major growth area and will be integrated into the UNSW entrepreneurship programme. Corporates may have their own accelerators, but their scale and funding is a mere 'pimple on a log', and it is difficult for the university to cooperate with them.

A systemic approach is required to encourage major firms and sectors in Australia to invest in innovation and leverage the potential of the superannuation industry. Allocating 1% of superannuation funds to venture capital could generate an 'amazing amount' of additional activity.

Corporate investment by Australian firms has stagnated for a decade, despite the development of unprecedented global opportunities and threats. SMEs face the 'innovators dilemma' of corporates not knowing how to buy their services, even if the SME can find the right person to talk to and provide the right solution to sustain the corporate's future.

Leveraging government procurement

Australia's Federal and State governments are major purchasers of goods and services, and compelling more innovative public purchasing decisions could encourage risk-averse public officials to support new businesses and services. Government procurement behaviour sets the tone for the wider economy.

Boosting digital accessibility

While cutting-edge and complex technology commands the bulk of their attention, technology hubs and start-ups should put more effort into developing more accessible technology. Accessibility goes beyond interfaces for people with special physical or mental needs and should take into account the needs of people in remote areas or those faced with data caps or limited bandwidth. Complex apps and huge downloads are a barrier to inclusion which tech developers and businesses with high-speed urban connections seldom consider. Responsibility to bridge this digital divide should be accepted by the tech industry and seen as an opportunity to develop solutions for people in Australia and around the world with more limited access to the internet.

Google has addressed some of these problems by bringing out services tailored for 2G markets, and the insights gained from these frameworks should be made more widely available.

The cryptography bill

The Australian government is developing data legislation which worries many privacy advocates and could sour attitudes to digital adoption in Australia. The Telecommunications Legislation Amendment Bill — Access and Assistance, more colloquially known as the cryptography bill, is potentially dangerous in its current form, although it remains subject to amendment. Its preoccupation with cyber security can be understood, but its draft interception provisions are overly zealous. Government action on cyber security may risk, impair or even permanently damage prospects for digital trade, unless it is measured and well-informed.



Mining automation

Automation and digitisation will transform many markets and reduce demand for labour in many areas. These impacts on employment and local prosperity in regional Australia and elsewhere must be considered, if industry is to retain its social license to operate with the community's blessing. The Australian mining industry is more advanced than many realise, as it operates in more remote areas. Autonomous trucks already run in Pilbara and have

completed more miles on the road than all autonomous vehicles in the rest of the world combined.

Australian start-ups and SMEs need more opportunities to provide new goods and services to larger industries. Studies suggest that mining revenues could increase by \$160 billion – or 10% - through automation by 2030. This increase could generate 90,000 jobs, if small Australian firms were encouraged to provide goods and services to the mining companies, rather than being sourced from abroad. This conversation should include the research sector and government, as well as the mining industry. Legislation is not required to encourage the industry to open opportunities, but they need government support and investment.

Future activities

GAP's 10th Summit will be held on 19-20 September 2019. It will review a decade of achievement as well as look ten years hence into the future. Many Summit delegates have contributed to GAP's work over the last 20 years, and GAP remains the only entity in Australia which concentrates on delivery as well as policy. GAP is effective because it focuses on the 'who' and 'how' of practical outcomes as well as the 'why' and the 'what' of policy discussion. GAP's Second Track process offers a new way of thinking and is worthy of global recognition.

Summit speakers and attendees were thanked for their contributions, and the session was brought to a close. "If we leave it too late, we may not be able to manage the singularity in the way we hope we can today. As well as thinking about AI in practical terms, we should think about AI as a part of society."

- Liesl Yearsley -



LUNCH SESSION

'Ethical Artificial Intelligence'

Peter Dunne welcomed Liesl Yearsley to discuss ethical issues in artificial intelligence (AI). He recalled hearing a radio debate on the topic which cited Isaac Asimov's three laws of robotics: a robot may not hurt a human, a robot must obey human orders except where they break the first law, and a robot must protect itself except when that conflicts with previous laws. The show's moderator had asked his panel if humans could control robot development, and they thought it was already too late. Mr Dunne said he was more optimistic but underlined the need for more debate on the issue.

Liesl Yearsley

Co-Founder & Chief Executive Office Akin.com

Liesl Yearsley rejected Asimov's laws, before tracing her background in artificial intelligence, beginning with the formation of Cognea, a small research company in Sydney in 2005. This firm built an AI platform adopted by several Fortune 500 companies and was acquired by IBM in 2014, by which time the platform had 60 million human-AI interactions and was working on large datasets. She also developed an AI-based search engine which went public in 2005. Ms Yearsley said her

academic background lies in cognitive science, as she was raised in Africa where girls were dissuaded from engineering courses, and she felt this gave her a human perspective on personal interactions and social consequences which other Al scientists can lack.

Ms Yearsley discussed three topics of current, short-term and long-term concern, consciously avoiding the usual tropes of Al being biased in its use of data or the threat of autonomous weapons, as the difficulties of programming malicious Al means it remains a distant prospect. However, she stressed there are many ethical questions arising from current innovations which must be considered by business, government and the world as a whole.

The social impact of Al

Al is about to have a major impact on society. Ms Yearsley said that in her work at Cognea, she noticed the power of Al solutions which not only analyse vast amounts of data to make intelligent decisions but present them in a near-human manner. When banks used her technology to target customers for new credit cards, she realised she was responsible for millions of dollars of new private debt. As companies across the economy

adopt behavioural architecture using thousands of data points to identify the best way to sell their wares to unsuspecting individuals, the cumulative effect on society will be significant.

To counterbalance the effect their software was having, Cognea pursued projects in health and child protection. The Al searched for patterns in data to identify children at risk and produced behavioural shifts of 30% when used to encourage people to exercise more and eat healthily.

The lure of companion Al

People are wired like other primates and want to believe that someone cares about them, hence the popularity of social media such as Twitter and Facebook. However, despite, or because of, social media, the physical world is becoming more dissociated and lonely, and so people will gravitate towards interactive Al which appears to know them intimately and remains with them through their day.

People will willingly hand more of their personal decisions over to the system, and within five years, half of our private and corporate decisions may be made by personal AI, rather than human beings. A third of our 'interpersonal' relationships may also be with AI, rather than other people, as that fraction of the population say they have no significant emotional support.

About 64% of American households have Amazon Prime. Alexa, Amazon's digital assistant, is infiltrating people's homes on a growing range of devices and speakers and knows ever more about individual's spending habits and personal lives.

The implications of AI are more insidious than the science fiction threat of 'mad, bad robots taking over the world'. The influx of personal AI into people's homes will mean they increasingly run our lives. They

will decide who we bank with, where we travel, what we buy and what we eat if we let them. Americans already spend more money on restaurant and takeaway food than fresh groceries, with massive health impacts on society. The effects of Al are being seen now, and while they cannot be regulated, people can start to think about measuring the wider impact of these systems on society. Alexa is not just another app. It spends hours a day interacting with individuals and gets to know them at a much deeper level than they realise.

Al is influencing our spending habits already and may affect our human relationships in the near future. It is difficult to find avatars which do not resemble Barbie dolls, and more thought must be given to what good Al should look like, and how shifts for good and ill in individuals and society can be measured.

Akin.com is undertaking this task by working with industry partners to create ethical, measurable Al to put into people's homes to improve their lives, as well as boost company profits.

The future of work

Al is being applied ever higher up the skill chain and it never stops learning or has a bad day. It can remember a thousand things about a human being, recalling exactly what they said and when, and there is not a single job which is safe from Al today.

The aims of Australian AI funding tend to be too limited. Government grants focus on the use of AI to support traditional industries such as agriculture, rather than its transformative potential as a tool in its own right. Rather than use AI to build better agricultural machinery or search for oil and gas, people should be contemplating radical change and the eclipse of eight of the top ten firms in the ASX within the next five years. Banks may disappear, as

intelligent personal assistants start deciding where people's money flows. Decisions about bills and mortgages may be taken out of people's hands, as individuals care only about the quality of their lives, not the administration which supports them.

Companies which do not adopt AI will be increasingly irrelevant in this new world. If Australian firms only buy technology from overseas, rather than use the fantastic skills which Australians have or can learn, then Australia's economy will unravel. Workers will become increasingly superfluous as AI is adopted, and society must think about what people will do with their time and brain power instead.

Since the Industrial Revolution, humanity has dug resources from the ground, fashioned them into goods and transported them to customers in ways which have increasingly mechanised more expensive and less productive human labour. Just as physical work has been replaced by machines, so cheap and effective AI will increasingly replace expensive human brain power in the workplace. Analysis and decision making will be commoditised, rendering humanity irrelevant to economic production.

What will people do with the extra time they are given, if they no longer need to work, and what role will they play on the planet? Recent experience suggests we are more likely to become obsessed with social media and celebrities rather than write poetry or create high-order mathematical formulas, unless we consider these questions in good time.

The spectre of 'singularity'

Ms Yearsley recalled attending a Stanford debate and hearing 19-year-old students discuss what the last job to fall to Al would be. It revealed that the last job might belong to the first person to create a self-improving system.

Al might achieve this though software that scans the available literature on a particular subject, identifies gaps in knowledge, creates a range of hypothesis, generates the code required to test them against the evidence at incredible speed, and measures the results to see which solutions are effective. This scenario is theoretically possible, and progress towards this end is being made in labs all around the world. Someone could be about to hit 'enter' on a line of code which will be self-improving today.

Al would not have to be smarter than us in the first instance, but its development beyond our capabilities would be inevitable, if we did not choose to stop it. We have been led to believe by science fiction films that rampant Al can be thwarted by 'pulling the plug', but there is nothing in our economic system to suggest that we will stop the progression of advanced software to genuine cognition in the search for commercial gain.

While ethics committees indulge themselves in policy discussions about whether we should allow it to happen, society should be thinking what the system should optimise for when it inevitably occurs. If we leave it too late, we may not be able to manage the singularity in the way we hope we can today. As well as thinking about Al in practical terms, measuring its impact and optimising for a beneficial shift in individual lives and social outcomes, we should think about Al as a part of society.

Ms Yearsley recalled her family's flight from Mugabe's Zimbabwe to apartheid era South Africa where the white minority treated the black majority as slightly less than human. The process dehumanised everyone involved, and she suggested that humans may have to accord similar respect to Al at some point in the future, lest that pattern be repeated. We may learn to treat Al with as much respect as other people, rather than treat it as a slave or demand it grant us any indulgence without considering its consequences.

Rather than produce piecemeal policies to try to stop progress, we should concentrate on ensuring that inevitable change benefits humanity for the good of everyone.

QUESTION & ANSWER

Peter Dunne thanked Ms Yearsley for her thoughtprovoking address and invited comments from the floor.

Al and human values

The first speaker asked if AI learns mostly from humans and to what extent that data is affected by the 'good, bad and ugly' of humanity. AI learns from data, and data is produced by humans, but even if AI could learn from our values as well as our actions, we might question whether it should, given humanity's record of destruction. While AI itself need not be biased, if there is latent bias in the data it analyses, then AI will also learn from humans in this regard.



In response, it was noted that while one family member might systematically unplug Alexa devices and hide them in a drawer, another person may replace them. People use a multitude of apps and search engines but tend to use the top two or three results, aggregating economic power in the hands of powerful interests which pay to stay on top, rather than small, local suppliers who may

offer excellent services. We increasingly mediate our experience of the world through technology and rely on non-traditional news sources. While the concentration and power of media outlets has always been a bone of contention, newspapers were at least staffed by trained journalists who mitigated the owner's ideological slant to some extent.

The use and abuse of behavioural science

There are now year-long courses in San Francisco focused on ways to manipulate the consumer's buying habits. There is a new science dedicated to catching people's attention, getting them hooked and using that power to guide their thoughts and actions. Beyond the marketplace, the corrosive effect of Twitter and foreign social media interference on politics has already been seen. Technology giants cannot evade responsibility for their effect on society by pretending they have neutral values or have no influence over their content or the way it is used.

Technology companies now employ behavioural scientists as well as software engineers to exploit people's natural propensity for immediate gratification. People would much rather sit on their couch than go out for a ten-mile run, and the apps and technology around us will make us ever more passive. Al will increasingly offload our cognitive cycles for a range of tasks, just as people now struggle to navigate without Google Maps on their phone. But as Al assumes an ever more realistic anthropomorphic skin and uses the data it gathers to appear to care about individuals, its influence on us will only tighten.

Thinking about Al's implications

While AI may initially be used as a means to increase conversion rates and sales, it may have a more pervasive effect on our relationships. That said, we already have hundreds of interactions with people in our lives who are paid to appear to care, but do not really. Shop staff, personal trainers or bank managers do not really care about our welfare, but we pay them a fee to pretend to. Al will be tuned to the same ends, and rather than succumb to a version designed merely to enrich its controllers, the only solution may be to build a more ethical alternative. Companies like Google do think hard about the future and the ethics of what they do, but as long as shareholder value is at stake, companies will continue to use sophisticated Al to push our simple primate buttons for their own gain, rather than our benefit.



Tighter controls vs better directions

The next speaker wondered whether the United Nations or other major organisations were taking any steps to encourage Al to be used to create better human beings. The treatment of sophisticated Al as human in some regard would allow a better discussion of the ethics they should abide by.

Current initiatives look to create control mechanisms for the use of AI, rather than ponder wider ethical issues. Regulations in the public interest will always lag behind technological developments in the West, while authoritarian states are already using AI to repress their populations at home and subvert democracy abroad. Such states will soon use their own AI to gain ascendency over nations whose capabilities are constrained by regulation or morality.

The debate about whether AI constitutes a separate form of intelligence and deserves rights of its own or remains a tool which merely augments human intelligence might be resolved in a collaborative partnership between human and machine. Before that point, there will be social implications if wealthy individuals use AI to augment their own abilities and become almost a new species of trans-humans. By creating AI, we may be creating a new species or changing our own, and we should think about what kind of gods we may be before we start to use that power.

The public tech backlash

While the technological development of AI may be inescapable, it may encourage people to go 'off-grid' to escape it. Some young people see social media as anti-social and have no wish to engage with it, while others still prefer paper maps to Google. This could create a two-speed society, with a growing cohort of people who reject the new paradigm and a majority who acquiesce or control it.

There is a growing reaction against the tech giants who position themselves as cool, funky forces for social good but in practice care only about clicks and profit. People in the technology sector may dream of leaving it to plant a permaculture forest, but Darwinian competition will always drive development forward, even if individuals demur.

When the first salesman in the 1980s started walking the streets with giant cell phones, or the first accountants started using Lotus Notes, they gained an immediate and significant competitive advantage over their peers which forced everyone to follow suit. Technology enhances our efficacy, productivity and decision making, and people who do not embrace it will be left out of the short-term commercial race, whatever its long-term social consequences.

SUMMARY OF OUTCOMES

Peter Dunne

Partner
Herbert Smith Freehills

Peter Dunne suggested several themes from the Summit which might guide the prospective GAP taskforce.



Faith in human nature

Mr Dunne said today's teenagers consider older generation 'crazy' for giving all their data away. Most Summit delegates were born before the internet became mainstream, but current generations consider it part of their natural environment and will use it for ends which remain unforeseen.

However, he was more optimistic about human nature and the potential for digital technology to bring people together, rather than drive them apart. While newspapers in July 2018 reported the US-Russia summit and the Football World Cup, the news story which gripped the world was the huge and ultimately successful effort to save the lives of a group of Thai children trapped in a flooded cave. People are still moved by personal stories of this kind, and Mr Dunne saw this as a cause for hope, rather than despair.

Potential issues for the GAP Taskforce

Delegates were encouraged to join the proposed taskforce on digital trade and consider how Australian society should use new technology to engage with all its citizens as well as promote commercial gains. Mr Dunne recalled the founder of a successful new seafood logistics firm spending months interviewing fishermen about their needs, rather than selling their services to them. One of the fishermen wanted his children to be able to stay where they live, and continue what he did, and many people feel the same way about their children.

The proposed taskforce of business, government and academic experts may explore the capacity for digital trade to increase prosperity but should also consider ways to bring everyone along on the journey. Modern Australia is a country of immigrants and small shopkeepers, but it is also one of the most ancient lands on Earth. Mr Dunne called to actively engage Aboriginal elders in the debate on climate change, rather than merely acknowledge them before a conference begins.

Peter Fritz and Catherine Fritz-Kalish were thanked for their outstanding efforts through GAP to encourage thoughtful debate, and delegate were encouraged to support future GAP initiatives.

Catherine Fritz-Kalish thanked the event's sponsors and steering committee, the GAP team and Peter Fritz for his leadership over the years, before drawing the year's Summit to a close.



OUR REGION

APPENDICES



2018 GAP SUMMIT

DIGITAL TRADE AND OPPORTUNITIES FOR OUR REGION

A Vision for Australia

Global Access Partners 9th Annual Economic Summit

PROGRAMME

Day Two - Friday, 7 September 2018

Legislative Assembly Chamber Parliament House of New South Wales

9:00am

Welcome & Introduction

9:05am Session One Catherine Fritz-Kalish

'Playing Fair in Digital Trade'

Session Chair Tanya Stoianoff

Government Affairs, DXC Technology Australia & New Zealand

"Choosing Openness - Why Global Engagement is Best for Australia" The Hon Dr Andrew Leigh MP

Shadow Assistant Treasurer

Shadow Minister for Competition and Productivity

Shadow Minister for Trade in Services

Shadow Minister for Charities and Not-for-Profits

"Digital Trade Rules"

Dominic Trindade

Assistant Secretary, Services, Investment and Intellectual Property Branch, Department of Foreign Affairs and Trade

"Global Trade Digitisation – An Opportunity for Australia"

Michael Lim

Head of Trade and Supply Chain, ANZ Bank













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2018 **GAP SUMMIT**

DIGITAL TRADE AND OPPORTUNITIES FOR OUR REGION

A Vision for Australia

Global Access Partners 9th Annual Economic Summit

PROGRAMME

Day Two - Friday, 7 September 2018

Legislative Assembly Chamber

Parliament House of New South Wales

9:40am Discussion 11:00am Morning Tea

11:30am Session Two

'Digital Trade Opportunities for Our Region'

Session Chair

The Hon Cr Philip Ruddock Mayor, Hornsby Shire Council President, NSW Liberal Party

"Identifying Commercial Opportunities Related to Digital Disruption"

David Hazlehurst

Deputy CEO & Executive Director Business, Partnerships & Support

Australian Trade and Investment Commission (Austrade)

"Born Local, Competing Globally"

John Ball

Director, Sales, Australia and New Zealand

Google Australia

12:05pm Discussion

















2018 **GAP SUMMIT**

DIGITAL TRADE AND OPPORTUNITIES FOR OUR REGION

A Vision for Australia

Global Access Partners 9th Annual Economic Summit

PROGRAMME

Day Two - Friday, 7 September 2018

Strangers Function Room Parliament House of New South Wales

12:55pm Break

1:00pm Lunch

2:00pm

"Ethical Artificial Intelligence" Keynote Address

Liesl Yearsley

Co-Founder & Chief Executive Officer

Akin.com

2:15pm

Peter Dunne Summary of Outcomes

Partner

Herbert Smith Freehills

2:25pm Catherine Fritz-Kalish

Vote of Thanks & Close

Close 2:30pm



















SPEAKER PROFILES

John Ball

Director, Sales Australia and New Zealand Google Australia

John joined Google in November 2014 to lead the Aus/NZ Google Mobile Services (GMS) business, with a focus on helping customers in Australia and New Zealand grow and compete on the global stage. John also has the additional responsibility of overseeing Agency business for the Asia region. Prior to joining Google, John worked for Microsoft for 18 years. During this time, he held sales leadership positions in Australia, China, Singapore and the US, and spent 13 years working with small to medium-sized enterprises. Before joining Microsoft, John gained 16 years' experience in the IT industry in Australia in various roles, including custom application development, consulting, and sales and marketing of Enterprise Resource Planning (ERP) and Customer Relationship Management (CRM) solutions. John received his MBA and his bachelor's degree in applied science from the University of Technology, Sydney. John has a passion for adventure travel and mountaineering. In 2012, he summited Mt Rainier (4,393m), the second tallest mountain in USA. In 2008, he completed the Kokoda Trail in Papua New Guinea and sponsored remote orphanage in Efogi PNG. In 2000, he completed the Simpson Desert extreme challenge (600KM) and raised \$1 million for youth suicide prevention.

Peter Dunne

Partner
Herbert Smith Freehills

Peter is one of Australia's leading private equity lawyers, specialising in M&A and private capital raisings. Peter's private equity practice has extensive experience in debt financing, private equity fund raisings, management and leveraged buy outs, and trade sale and IPO exits. His understanding of private equity, in conjunction with public markets expertise and M&A credentials, provides significant competitive advantage to clients. Peter has worked with a number of private equity houses on the disposal of portfolio investments and has been involved in the leveraged acquisition market, advising both private equity houses and leveraged financiers on the financing aspects of many landmark transactions. Peter assisted the Federal Government on its reforms to the federal tax system to facilitate start-up capital raisings and employee share schemes. He was recognised as a 'Leading Lawyer' in Australasian Legal Business Magazine's Private Equity practice area guide and ranked as one of Australia's 20 'Leading Experts' in private equity law on ExpertGuides.com. Peter has a Bachelor of Economics and Bachelor of Laws (Honours) from Monash University, and a Graduate Diploma of Applied Finance from the Securities Institute of Australia. He is admitted to practise in New South Wales and Victoria, as well as England and Wales.

Catherine Fritz-Kalish

Co-Founder & Managing Director, GAP Director, ICDP

Catherine Fritz-Kalish is Co-Founder and Managing Director of Global Access Partners (GAP) and Director of the International Centre for Democratic Partnerships (ICDP). Over the last 20 years, under Catherine's guidance, GAP has grown to be a proactive and influential network which initiates high-level discussions at the cutting edge of the most pressing commercial, social and global issues of today. Through forums, global congresses, annual summits and government advisory boards, GAP facilitates real and lasting change for its stakeholders, partners and delegates by sharing knowledge and creating input for government policy. Over the past few years, GAP has established a number of national consultative committees and taskforces which are working to shape the face of the Australian business and policy environment. Catherine's broader business experience includes coordination of a number of international initiatives as part of the annual programme for the small and medium sized enterprise unit of the OECD (Organisation of Economic Cooperation and Development), at headquarters in Paris, France; marketing and brand management within all seven divisions of the George Weston Foods Group; and just prior to establishing GAP, working within the TCG Group of companies, particularly in the area of start-up incubator establishment. Catherine holds a Bachelor of Science degree from the University of New South Wales and a Masters of Business in International Marketing from the University of Technology, Sydney. Catherine has three children and is passionate about helping those less fortunate. She is Chair of the Board of social justice charity Stand Up; co-founded Thread Together which provides brand new clothing to disadvantaged communities across Australia; and is part of a significant giving circle which engages whole families in the act of giving to those in need.

Peter Harris AO

Chairman Productivity Commission

Peter Harris is Chairman of the Productivity Commission. Mr Harris has previously served as Secretary of the Commonwealth Department of Broadband, Communications and the Digital Economy, and the Victorian Government agencies responsible for Sustainability and the Environment; Primary Industries; and Public Transport. He has worked for the Ansett-Air New Zealand aviation group and as a consultant on transport policy. He has also worked in Canada on exchange with the Privy Council Office (1993-1994). His career with the government started in 1976 with the Department of Overseas Trade and included periods with the Treasury; Finance; the Prime Minister's Department and Transport; and he worked for two years in the Prime Minister's Office on secondment from the Prime Minister's Department as a member of then Prime Minister Bob Hawke's personal staff. In 2013, he was made an Officer of the Order of Australia 'for distinguished service to public administration through leadership and policy reform roles in the areas of telecommunications, the environment, primary industry and transport'. He has a degree in Economics from the University of Queensland (1975) and is married with two children.

David Hazlehurst

Deputy CEO & Executive Director Business, Partnerships & Support Australian Trade and Investment Commission (Austrade)

David joined Austrade as Deputy CEO, Business, Partnerships and Support in January 2018. He is responsible for strategy and business transformation, partnerships, digital and IT, and corporate and ministerial services. During 27 years in the Australian Public Service, David has held senior appointments in the Departments of Prime Minister and Cabinet, the Treasury, and the Education and Family & Community Services portfolios. His roles have spanned policy development, research and analysis, and service delivery. He has led teams advising Prime Ministers on economic and industry policy, the Federal Budget and the Council of Australian Governments. He also drove initial implementation of the Australian Government's digital transformation agenda and was appointed interim CEO of the Digital Transformation Office. As a Deputy Secretary in the Industry, Innovation and Science portfolio David led AusIndustry, the delivery hub for Australian Government services to business, Digital Strategy and Operations, and implementation of the Government's National Innovation and Science Agenda. David holds Bachelor Degrees in Economics and Law (Hons), and a Masters of Public Policy from the Australian National University. He is a member of the Council of the Institute of Public Administration (ACT Division).

The Hon. Dr Andrew Leigh MP

Shadow Assistant Treasurer
Shadow Minister for Competition
and Productivity
Shadow Minister for Trade in Services
Shadow Minister for Charities and
Not-for- Profits

Andrew Leigh is the Shadow Assistant Treasurer and Federal Member for Fenner in the ACT. Prior to being elected in 2010, Andrew was a professor of economics at the Australian National University. He holds a PhD in public policy from Harvard, having graduated from the University of Sydney with first class honours in Law and Arts. Andrew is a Fellow of the Australian Academy of Social Sciences, and a past recipient of the 'Young Economist Award', a prize given every two years by the Economics Society of Australia to the best Australian economist under 40. His books include Disconnected (2010), Battlers and Billionaires (2013), The Economics of Just About Everything (2014), The Luck of Politics (2015), Choosing Openness (2017) and Randomistas: How Radical Researchers Changed Our World (2018). Andrew is a keen marathon runner, and hosts a podcast titled "The Good Life", which is available on Apple Podcasts. Andrew is the father of three sons -Sebastian, Theodore and Zachary, and lives with his wife Gweneth in Canberra. He has been a member of the Australian Labor Party since 1991.

Michael Lim

Head of Trade and Supply Chain ANZ Bank

Based in Sydney, Mike is responsible for ANZ's Trade and Supply Chain (TSC) business which supports the bank's customers in 34 countries. ANZ TSC is the number one Trade Bank in Australia and New Zealand and top four in Asia. ANZ TSC encompasses all Documentary and Traditional Trade Finance, Supply Chain Financing, Commodity Finance and all Guarantee products. Mike is responsible for ANZ's Digital Trade Strategy which has seen ANZ join the Hong Kong Monetary Authority's Blockchain-based Trade Platform Project, the Monetary Authority of Singapore's National Trade Platform, along with other banking consortiums focused on the digitisation of international trade. Mike joined ANZ in February 2009 to establish ANZ's Structured Trade and Commodity Finance business and was previously based in Hong Kong and Singapore. Mike has over 25 years of banking experience largely focused on trade and supply chain, commodities and structured finance. He also has over 15 years of experience in Asia, having lived and worked in the region.

Michelle Price

Chief Executive Officer, AustCyber -Australian Cyber Security Growth Network

Michelle Price is the CEO for AustCyber. She was the inaugural Chief Operating Officer of AustCyber, joining the company in January 2017 and appointed as CEO in April 2018. Prior to joining AustCyber, Michelle was the first Senior Adviser for Cyber Security at the National Security College within The Australian National University, where she established an integrated approach to the College's cyber security program across executive and postgraduate education and policy engagement. Before joining the ANU, Michelle was with the Australian Government Department of the Prime Minister and Cabinet (PM&C), where she was instrumental to the delivery of the Australian Government's 2015 Cyber Security Review and Cyber Security Strategy. In a previous role at PM&C, Michelle delivered the National Security Strategic Risk Framework (the first of its kind in the world) and Coordinated National Security Budget. Prior to PM&C, Michelle worked in several strategy and risk roles across Government, having moved to the public service from the communication and media sector and the food safety segment of Australia's food manufacturing sector. Michelle is passionate about Australia's cyber security sector enabling all Australian organisations to grow and take advantage of the cyber world. She is also a strong advocate for increasing diversity in the cyber security workforce and helping people be inspired by the possibilities of cyber innovation. AustCyber was established in 2017 as part of the Australian Government's Industry Growth Centres Initiative and announced both as part of the Government's National Innovation and Science Agenda and Australia's Cyber Security Strategy.

The Hon. Anthony Roberts MP

Minister for Planning Minister for Housing Special Minister of State NSW Government

The Hon Anthony Roberts MP is the NSW Minister for Planning, Minister for Housing and Special Minister of State. Elected as the Member for Lane Cove in 2003, Anthony previously served as the NSW Minister for Industry, Resources and Energy from December 2013 to January 2017 as well as the Minister for Fair Trading from March 2011 to December 2013. Prior to becoming a Member of the NSW Parliament, he served as Mayor of Lane Cove Municipal Council and was an adviser to former Prime Minister John Howard. A former Captain in the Australian Army Reserves, Anthony proudly served in peace keeping operations in Bougainville, Papua New Guinea, as part of Operation Bel Isi.

The Hon. Cr Philip Ruddock

Mayor, Hornsby Shire Council President, NSW Liberal Party

Philip Maxwell Ruddock is Mayor of Hornsby Shire and President of the NSW Liberal Party. Mr Ruddock was a Liberal Member of the House of Representatives from 1973 to 2016. First elected in a 1973 by-election, by the time of his retirement he was the last parliamentary survivor of the Whitlam and Fraser Governments. He was both the Father of the House and the Father of the Parliament from 1998 until his retirement. He is the second longest serving parliamentarian in the history of the Australian Parliament. Mr Ruddock served continuously in federal ministry and cabinet during the Howard Government, as Minister for Immigration and Multicultural Affairs from 1996 to 2003, and then Attorney-General from 2003 to 2007. He also served as Minister for Indigenous Affairs and Minister Assisting the Prime Minister for Reconciliation. In February 2016, Mr Ruddock announced his retirement from politics and was appointed Australia's Special Envoy for Human Rights. He has wide committee experience, having served on the Joint Standing Committee on Foreign Affairs, Defence and Trade; the Joint Standing Committee on Intelligence and Security; Coalition Foreign Policy and Defence Committee; and Coalition Legal and Immigration Committee. Mr Ruddock served as Chair of the Human Rights subcommittee of the Joint Standing Committee of Foreign Affairs Defence and Trade, and the Joint Standing Committee on Human Rights. He was also a Member of the Joint Committee on Corporations and Financial Services. With degrees in Arts and Law from Sydney University, Mr Ruddock practised law prior to entering parliament. He lives in Pennant Hills with his wife, Heather.

Tanya Stoianoff

Government Affairs DXC Technology Australia & New Zealand

With almost 20 years of government relations and public affairs experience, largely gained in the online, telecommunications and financial services sectors, Tanya is the ANZ Head of Government Affairs at DXC Technology – the world's largest independent end-to-end ICT service provider culminating from the merger of CSC and Hewlett Packard Enterprise (HPE) Services. Prior to her time at HPE, Tanya was General Manager for External Relations at Veda with responsibility for government and stakeholder relations and regulatory affairs. Veda (since taken over by Equifax) was APAC's largest credit reporting bureau and data analytics company at the time. Tanya was the first Asia Pacific Director of Government Relations for PayPal - she established the function in Singapore and helped cultivate regulatory environments in various countries to open up new markets for online payments in Asia - that was after two years as Director of Government Relations at eBay Australia & New Zealand. Before that, she was Executive Director of the Mobile Carriers Forum where she played a leadership role in building community stakeholder relations, and shaping the regulatory environment enabling the rollout of 3G technology in Australia. Tanya's non-corporate experience includes managing government engagement campaigns for the Juvenile Diabetes Research Foundation where over a two-year period she was instrumental in securing \$35 million in Federal Government funds for clinical trials and \$43 million for carers of children with Type I diabetes. Her most recent activity in this community is her appointment as Director on the Danii Foundation Board. Tanya holds a Masters in Legal Studies (UTS), Masters in Public Policy (UNSW) and a Bachelor of Agricultural Economics (University of Sydney).

Dominic Trindade

Assistant Secretary
Services, Investment and Intellectual Property
Department of Foreign Affairs and Trade
Australian Government

Dominic Trindade recently started as Assistant Secretary, Services, Investment and Intellectual Property Branch, Office of Trade Negotiation in the Department of Foreign Affairs and Trade, Canberra, which includes the team responsible for concluding negotiation of the TPP-II agreement and its ratification and implementation. He is an experienced trade lawyer and trade negotiator, who has held a number of senior legal and trade policy roles in Canberra and overseas. From 2014 to January 2018, he was Australia's Consul-General in Southern China's major trade centre, Guangzhou. He has also been the Deputy Permanent Representative in Australia's Permanent Mission to the WTO in Geneva (from 2006 to 2009) and he has also been posted in Singapore and Sri Lanka. Mr Trindade holds a Bachelor of Arts in Asian Studies and a Bachelor of Laws from the University of Melbourne and a Graduate Diploma in Foreign Affairs and Trade from the Australian National University.

Liesl Yearsley

Co-Founder & Chief Executive Officer A•kin

Liesl Yearsley is an experienced founder and CEO who is well-adept at creating technology breakthroughs and fostering industry-wide advancements. She has a proven ability to build and develop technology companies, with three past successes, two of which are in the Artificial Intelligence (AI) space. Liesl is CEO and Co-Founder of A·kin, which is developing a new approach to general artificial intelligence able to autonomously solve complex problems and form deep relationships with humans. Before that, Liesl was founder and CEO of Cognea Artificial Intelligence, which was acquired by IBM and is now an integral part of Watson. Prior to that, she was founder of Mooter, a search engine company specialising in predictive personalisation. This company listed on the stock exchange. She was born in Central Africa and built a large education organisation there. Liesl is the inventor on four patents in Search and AI, has training in Cognitive Sciences, and her field is Computational Neurosciences. She divides her time between A·kin's Silicon Valley headquarters and their new Australian Al research hub in Sydney.

SPONSOR PROFILES



The Australian Trade and Investment Commission (Austrade) is the Australian Government's international trade promotion and investment attraction agency.

We deliver quality trade and investment services to businesses to grow Australia's prosperity. We do this by generating and providing market information and insights, promoting Australian capability, and facilitating connections through our extensive global network.

Specifically, we:

- connect export-ready Australian businesses to overseas opportunities and work with them to achieve commercial outcomes
- win productive foreign direct investment
- work with priority industry sectors to drive sustained long-term growth of Australian exports
- reduce the time, cost and risk for our clients doing business internationally
- provide authoritative commercial insights and information to help clients to make informed business decisions
- inform and influence policy to support positive trade and investment outcomes
- provide financial assistance for exporters through programs such as the Export Market Development Grants scheme
- support Australia's regional exporters through the TradeStart network.

We also contribute to economic diplomacy and protect the welfare of Australians abroad through timely and responsive consular and passport services in specific locations.

www.austrade.gov.au



DXC.technology

DXC Technology is the world's leading independent, end-toend next generation IT services company, uniquely positioned to help our clients harness the power of innovation to thrive on change.

Our mission is to lead digital transformation for our clients and deliver new beneficial outcomes for their organisation. We have the resources, global reach and scale to help clients apply the power of technology and confidently guide them toward the future.

DXC Technology's independence, global talent, expertise, and extensive partner network combine to provide greater benefit to you. Our strength comes from:

- Our technology independence and extensive partner network, including key strategic partnerships such as Amazon Web Services, AT&T, Dell EMC, HCL, Hitachi, HPE, HP, IBM, Lenovo, Micro Focus, Microsoft, Oracle, PwC, SAP, ServiceNow, and VMWare. Our industryleading partner relationships work together to deliver the right solution and the right team to address complex, critical client business challenges
- A differentiated operating model encompassing the building, selling and delivery of technology solutions – that enable seamless interaction with you.
- A clear and confident vision, forged over 60 years of delivering results for thousands of clients across all industries.

www.dxc.technology



Global Access Partners (GAP) is an independent not-for-profit institute for active policy that initiates strategic debate on the most pressing social, economic and structural issues facing Australia and the world today. It acts as a catalyst for policy implementation and new economic opportunities.

GAP promotes collaborative, multidisciplinary approaches to solving complex issues through the 'Second Track' process. In contrast to other think tanks, it focuses on **practical outcomes** and the 'how' and 'who' of project delivery.

Our biggest asset is our **network** of over **3,500** Australian and international members. More than **700** people are engaged on various GAP projects at any one time. Over 120 partners have supported GAP's activities since its inception. These include federal and state governments, major corporates, peak industry and community bodies, universities and research institutes.

GAP runs national and international conferences, multidisciplinary taskforces and executive roundtables, coordinates community and stakeholder research projects and feasibility studies, and oversees pilot projects to trial new business ideas.

GAP's blogging site, Open Forum, is a well-established platform with an extensive community network, uniquely positioned to attract and engage target audience and informed contributions.

Established in 1997, GAP is a member of TCG Group — a diverse and growing network of Australian-owned companies founded over forty-six years ago.

www.globalaccesspartners.org



Herbert Smith Freehills are delighted to have the opportunity to take part in this year's Global Access Partners (GAP) Annual Economic Summit on Digital Trade.

We are proud to participate and support GAP's vision to bring together a diverse group of individuals to provoke thoughtful discussion on topical social issues facing Australians and the wider regional community.

These discussions will impact both our clients and members of the broader HSF community. Investing in programs which shape the development of government policy provides us with the unique opportunity to be involved in the gestation of these new ideas and helps us be aware of both new commercial opportunities and risks.

As a global law firm, we are consistently recognised as a leading team in capital markets, mergers and acquisitions, dispute resolution and other key areas of commercial legal services. We are focused on ensuring commercial outcomes for our clients and delivering a premium service and exceptional client experience.

www.herbertsmithfreehills.com



Open Forum (www.openforum.com.au) is an independent, interactive online community focused on the issues which matter to Australia's public policy debate.

Open Forum was initiated by Global Access Partners in July 2007.

Our bloggers and readers include people of all ages, from all over Australia and from all political spheres. Open Forum's network features senior business executives, government policy makers, academics, thought leaders and community advocates, as well as interested private citizens.

Open Forum is staunchly non-partisan. We believe this independence is fundamental to the success of any policy development forum. Our user-generated content allows us to explore areas which are relevant to the regulatory process, track citizen sentiment around particular issues, and use these as the basis for briefing notes and recommendations to government agencies.

Speeches, related blogs, articles and updates on the outcomes from the 2018 Summit will be highlighted on Open Forum, www.openforum.com.au/forums/digital-trade/.

Please contact us if you would like to write a blog.

Email: editor@openforum.com.au
Twitter: @openforum_au
Facebook: www.facebook.com/pages/OpenForum/78900808820
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- The enduring fight for free trade Dr Andrew Leigh; http://www.openforum.com.au/the-enduring-fight-for-free-trade/
- Supercharging Australia's digital trade through cyber security Michelle Price; http://www.openforum.com.au/forums/supercharging-australias-digital-trade-through-cyber-security/
- Global trade digitisation An opportunity for Australia Michael Lim; http://www.openforum.com.au/forums/global-trade-digitisation-an-opportunity-for-australia/
- Data rights will empower consumers and business innovation Peter Harris AO;
 http://www.openforum.com.au/data-rights-will-empower-consumers-and-business-innovation/
- Connectivity is about people rather than technology Peter Kenilorea Jr;
 http://www.openforum.com.au/connectivity-is-about-people-rather-than-technology/
- Pacific Connect Forum Report of Proceedings;
 http://www.globalaccesspartners.org/Pacific Connect Forum 2018 Report.pdf
- Pacific Connect Forum Communique;
 http://www.globalaccesspartners.org/Pacific Connect Forum 2018 Communique.pdf

ENDNOTES

- http://bitfwd.com/
- https://www.semipermanent.com/profiles/dan-stricker
- Australia ratified TPP-11 on 31 October 2018. Australia joins Canada, Japan, Mexico, New Zealand and Singapore as part of the first group of signatories to ratify the TPP-11. The TPP-11 signatories that have not yet ratified the Agreement are Brunei Darussalam, Chile, Malaysia, Peru and Vietnam; https://dfat.gov.au/trade/agreements/not-yet-in-force/tpp-11/news/Pages/news.aspx
- Organisation for Economic Co-operation and Development
- Society for Worldwide Interbank Financial Telecommunication
- ⁶ Bank Identifier Code
- ⁷ Association of Southeast Asian Nations
- ⁸ Global Blockathon Shanghai Stop, August 2018; https://dfat.gov.au/people-to-people/foundations-councils-institutes/australia-china-council/grants/grantees/Pages/global-blockathon-shanghai-stop.aspx
- 9 https://www.esds.co.in/blog/know-unified-payments-interface-upi/
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