#### MC - Madonna King

Ladies and gentlemen, could I ask you to take your seats and we'll get underway, thank you. What a terrific and big audience, a wonderful vibe in the room. Well good morning, and on behalf of the Office of the Information Commissioner Queensland and in partnership with the State Library, welcome to our annual Solomon Lecture. Accountability in the Age of the Artificial. What a timely discussion to have, particularly with the recent enactment of the Human Rights Act 2019. My name is Madonna King, I'm your MC and it is a pleasure to be part of this discussion this year. And that's because it marks the tenth anniversary of the Right to Information Act 2009 and the Information Privacy Act 2009 here in our state of Queensland. And today's lecture by Fiona McLeod SC headlines a range of activities to celebrate that milestone and I'd like to acknowledge Fiona with us today, thanks Fiona. I'd also like to acknowledge our panellists, Scott McDougall, Queensland Human Rights Commissioner, Dr Brent Richards, Medical Director of Innovation at the Gold Coast Hospital and Health Service, Simon McKee, Deputy Commissioner for Queensland Treasury, Phil Green, Queensland Privacy Commissioner, along with Mr Peter Russo MP, the Member for Toohey and Chair of Legal Affairs and Community Safety Committee and Australian Information Access Commissioners welcome. I'd also like to apologise on behalf of David Solomon AM, who cannot be with us today but after whom this lecture is named. A few housekeeping issues before we start. Could I ask that you check that your phone is now on silent? In the unlikely event of an emergency we would just follow closely the instructions given to us by staff. The bathrooms are located out the door you came in, past the registration desk and on my right. The Edge is part of the State Library of Queensland and visitors are governed by the policies and standards that the State Library of Queensland has put in place. And finally before we get underway it's very important for me to acknowledge the traditional owners of the land on which we meet and pay our respects to elders past, present and emerging. And with that to officially welcome you can I introduce Rachael Rangihaeata, Queensland's Information Commissioner, thank you.

### Applause

### **Queensland Information Commissioner - Rachael Rangihaeata**

Thank you Madonna. Good morning I'm Rachael Rangihaeata, Queensland Information Commissioner and on behalf of the Office of the Information Commissioner and our event host partner, the Queensland State Library I'd like to welcome you all to this special 2019 Solomon

Lecture as part of our tenth anniversary celebrations. Firstly I would like to respectfully acknowledge the traditional owners of the land on which this event is taking place. I would also like to pay my respects to the elders both past and present and emerging. I would like to take the opportunity to acknowledge Dr David Solomon in whose honour we hold our annual lecture. Dr Solomon had planned to be here with us today and is very disappointed to miss this event. Today we are marking the tenth anniversary of the Right to Information Act and the Information Privacy Act in Queensland. Our legislation resulted from the landmark independent panel review of freedom of information in Queensland, chaired by Dr Solomon. I would like to extend a warm welcome to Fiona McLeod, Senior Counsel, our Solomon lecturer today. I would also like to welcome and thank our panellists for sharing their experience and views in the State Library and for co-hosting this event. I also acknowledge our distinguished guests joining us today, Mr Peter Russo, Chair of the Queensland Parliamentary Legal Affairs and Community Safety Committee. My integrity committee colleagues, Queensland Ombudsman, Phil Clarke, Chair, Crime and Corruption Commission, Alan MacSporran QC, and Integrity Commissioner, Nikola Stepanov. And my Australian and New Zealand colleagues, Information Commissioners and Ombudsman joining us today. It is also pleasing to see many agency leaders and representatives engaging with this event across different sectors including statutory bodies, departments, local government, government owned corporations and public authorities. Over the past ten years of Right to Information, Information Privacy Acts some consistent key themes have been represented in the work of Queensland government agencies, my office and Solomon lectures.

As expected, greater maturity and technical compliance has facilitated more strategic engagement in both advice and audit and increased in complexity in matters coming to our office on external review and privacy complaints. Technology has changed significantly since 2009. It presents great opportunities, efficiencies and expectations for service delivery and information delivery and broader operation of government. 195 government agencies across Queensland recently confirmed in the ten years on self assessment audit, that they have less maturity and a greater need for improvement on areas relating to technology, presenting greater risk in how we adopt technology without ensuring appropriate systems and processes are in place. Importantly only 25% of agencies reported appropriate processes for privacy impact assessments were in place, a critical tool for assessing and addressing privacy risks. Similarly rapid adoption of technology is often not managed appropriately to ensure information access obligations can be met. While the technology has rapidly evolved over the past ten years many of the issues are similar. The best results tend to occur when agencies take what is commonly known as a by-design approach, where privacy and information access are

considered and built into the design of projects and policies from the beginning. The opposite approach tends to result in unaccepted outcomes for the community and government and negative publicity that diminishes trust. Public lack of trust can easily undermine use of key technology initiatives, moving to a push model of proactive release and administrative access where formal applications are a last resort in conjunctive, in conjunction with a new legislative regime for information privacy. Always represented, a necessary culture change that would occur overtime with strong and consistent leadership. Culture and leadership have been consistent themes of our work in past Solomon lectures. Each of these lectures by eminent speakers, such as Emeritus Professor Richard Mulgan, Kerry O'Brien and Professor Ken Smith, have provoked discussions, engaged audiences and challenged us to further the objectives of the legislation in the current and future context in which we operate. What has always been clear and brought home by each lecture is that the legislation and the broader objection, objectives is about the rights of the community, the public interest and the government's role as custodian of information. Government has a higher responsibility and expectation from the community in the context of recent developments to manage personnel information in particular with care and transparency.

It is of particular significance that as we mark ten years of rights to information access and privacy in Queensland, following the Solomon report, we are also marking 30 years since the Fitzgerald report, which led to the first information access rights under the Freedom of Information Act in 1992, and the creation of my office. We also mark our tenth anniversary in the context of new human rights in Queensland from January next year. The rights to information privacy and information access form parts of two new human rights and will therefore continue to evolve taking us forward into a new era. Bringing her diverse experience including as co-chair, open government forum, open government partnership and chair of both transparency international Australia and the accountability round table and as a recognised human rights advocate we ask Fiona to focus on transparency, openness and accountability in the context of increasing adoption of technologies such as artificial intelligence in government functions and decision making. I am sure you will agree that Fiona's lecture promises to live up to the Solomon lecture reputation. It's particularly topical and we look forward to it in the panel discussion today. Artificial intelligence is currently the subject of great interest in this area. The United Kingdom Information Commissioner has recruited a post doctorial research fellow NAI to head a team to develop an auditing framework and guidance for AI as a key strategic objective for the office. Over the last six months the Office of the Victorian Information Commissioner has collaborated with experts in the AI field to produce a book titled Closer to the Machine, Technical, Social and Legal Aspects of Al. OVIC will celebrate the launch of this publication this Friday, 30<sup>th</sup> of August in Melbourne with an event which will be live streamed. Finally I take this opportunity to thank our wonderful team who continue to take pride in performing our statutory functions with excellence and providing high quality services to the community in a respectful manner every day. Thank you.

### Applause

### MC - Madonna King

Thanks Rachael, and that ten year mark, what an important milestone, and 30 years since the Fitzgerald report. Who actually remembers it being handed down? Yeah, so at least 50% of us. I think I was a reporter in nappies back then, but I think an indication of how important it was or is to this state is I recently asked my 14 year old what was it about and she could tell me. Mind you she did say it was handed down by the Labor Premier Joh Bjelke-Petersen. So I've got a bit more work to do there. Our hashtag today is #RTID2019. Please join us in trying to get this really important conversation trending today. Al rolls off the tongue seamlessly in conversation now, but what is its impact and importantly how should it be used? Are big data in artificial intelligence the enemies of the people, or exactly what is needed to illuminate buyers, improve scrutiny and outcomes, Accountability in the Age of the Artificial? We are thrilled that the Solomon lecture today will be delivered by Fiona McLeod SC. Fiona is the Chair of the Accountability Round Table, a former Co-chair of the Open Government Forum and Chair of Transparency International and her resume doesn't stop there. She's the Chair of the International Bar Association Diversity Council, past present of the Law Council of Australia and the Australian Bar Association and was Chair of the Victorian Bar and President of Australian Women Lawyers. Fiona will address us and then a stellar panel will have a chat about some of the issues raised. Ladies and gentlemen a big warm Brisbane welcome for Fiona McLeod.

## Applause

## Fiona McLeod SC

Thank you very much Madonna, and good morning everyone. Thank you Rachael, and I would like to acknowledge also distinguished guests in the audience, including my former colleague, Alan, of course, and my co-panellists. I'm going to put this next to me, so if you see me waving it at my face it's because the facial recognition technology is not working very well. More about that later. But also because I do want to leave time at the end for the panellists commentary and discussion. Can I begin also by acknowledging the Turrubul and Yagurra, the traditional

owners of the land on which we meet, and pay my respect to elders past, present and emerging. I extend my respects to all Aboriginal and Torres Strait Islander people joining us here today. It's a very great honour to present the Solomon lecture to you today and it's been energising to me personally to have been asked to address this eminent group. In the interest of transparency I have to begin with a disclosure. It's not the one you're thinking. It is that I have no particular experience in digital technology beyond a single year of undergraduate computer science and an enthusiasm for science fiction. I'm also a warm embracer of social media, which qualifies me for exactly nothing beyond that enthusiasm, which is a trait I evidently share with the President of the United States. I do know however, that knowing a little bit about a lot of things, as any good barrister would tell you, is fraught with danger. So I'm very much hoping that the things I say today translate into a breadth of view and set a few hairs running.

As Rachael noted this lecture is on our eminent colleague David Solomon, a former Queensland Integrity Commissioner. Now I've decided in David's footsteps, that it's my goal in life to have a lecture named after me, which is undoubtedly a very fine thing. This replaces my former goal in life which was to have my own bobble head. This was after seeing the Ruth Bader Ginsburg bobble head on sale in the Harvard law school bookshop. So evidently there's a long way to go. But David was of course a champion of open information and I was urged to read the Solomon FOI review as homework for my appearance with him last year on behalf of the accountability round table before a parliamentary committee inquiry. The committee was examining Rex, Senator Rex Patrick's bill into FOI reform last year and we were supporting his push for FOI reform of laws and practices. I was in ore of David's body of work then and that, that particular homework and his extraordinary contribution to the long and challenging quest for openness by default. So David as is noted as an apology today, and we miss him.

So can I start with some definition of terms? And the first is to ask what is accountability? Because it's a word we often use in the context of government services, it's a word we often use in this sphere, the digital sphere and it's been used in different contexts. It's been thrown around as a worthy goal in government and business dealings and especially in the cyberspace. So what do we mean and what do governments mean when they commit to accountability in dealing with information. In essence accountability encompasses the processes and the enablers that allow people to hold government to account and the institutions of state to answer for their conduct and for their admissions, their decisions and their indecision. It is the beating heart of administrative law. It is the core of the public service

values and it is even the crazy brave aspiration of human rights and of markets that operate with integrity. It is the EI Dorado of democracy. Accountability is mega context dependant. By this I mean it is cultural, political and social factors that impact upon what is considered accountable conduct. So for example the expectation of the ability to scrutinise decision making in China and Russia would be quite different from what you would expect in Australia and the European Union. It also varies depending upon the tolerance of the micro context as we shall see. Are we talking about accountability in the context of public sector integrity and anti-corruption measure, are we talking about freedom of the press, are we talking about digital governance or public procurement, are we talking about public service delivery, human rights monitoring or national security? As David understood all too well, access to information is fundamental to knowing what government is up to and our ability to actively participate in decisions that affect us, as critics, as beneficiaries, as those affected by adverse outcomes and ultimately as electors.

Now, naturally those with power would like to avoid scrutiny and criticism and to control the means by which we talk about them and their decisions and how we find things out. Now that's a natural. While openness can be productive of discomfort however, governments that embrace this scrutiny and the direct participation of citizens ultimately do make better more informed decisions. Government accountability builds trust and respect and supports a more equitable society. So we need more of it. Because we have a power asymmetry and information is both a source of power and economic domination. Because public office is at its heart a public trust and we're seeing that trust eroded. Because government legitimacy depends on decisions being open to scrutiny and because quite frankly we demand it. Ultimately it is why we consent to be governed and the corresponding legitimacy of government. So accountability is important. And yet in Australia and throughout the world accountability is and has always been under threat. We've settled for a, trust us or vote us out model of democracy and a veneer of transparency, resulting in piecemeal and an unstrategic approach to accountability.

For example, the federal government committed to bring in a Commonwealth Integrity Commission after its hand was forced by independence in the last parliament. The original preferred model of closed hearings with no power of the Commission to initiate inquiries appeared to me more like a benign hall monitor issuing don't run notices than a body capable of balancing competing public and private interests, of driving a culture of anti-corruption throughout government, private organisations and the community. And numerous other areas need attention. Our whistle blower laws need improvement. The creation of a beneficial interest register has stalled, caught up in anti red tape rhetoric. Our parliamentarians are not bound by any Code of Conduct and have no ability to access independent ethics advice. There are no consequences for a breach of ministerial standards unless an inherently inflicted Prime Minister decides to act. Current laws and practices mar our FOI laws, campaign financing and the regulation of lobbyers. And our robust tendering processes are routinely relegated and undermined. Ministers and their staff have adopted the role of a gatekeeper for the exercise of public service duties and if parliaments not even sitting government controls every opportunity to question its conduct. Now our commitment to the open government partnership has not so far been productive of any particularly stunning advances in the context of data accountability. The base assumption seems to be that greater availability of data held by government increases transparency and openness. It's not a bad starting point. But two national action plans have been produced, and each includes commitments around the sharing of data and the reporting of metrics of information access. But these commitments are focused on sharing data within government and with trusted advisors, and do not contemplate public sharing of data.

Now there was some early vague commitments to FOI law reform and a promise of transformation of the delivery of government services but nothing explicit in terms of the assurances of accountability beyond the use of information. The risk is that we are in fact moving to reduce openness with these initiatives. As Ken Hayne recently lamented in the wake of an action over his Royal Commission recommendations and then burgeoning Crown Casino revelations, trust in government and institutions has been damaged or destroyed. Our standing on the transparency International Global Corruption Index fell, then has stagnated, and surveys on trust and government reveal a shocking trust deficit. So in the context of data, big data and artificial intelligence, accountability is if not more important than any other priority. And AI is all the rage right now. So we dream of the brave new world where we tell the kitchen that we're hungry and it prepares a wholesome meal, where the Fitbit diagnoses our health and our declining health and prescribes surgical enhancement or therapy. Where robots mine asteroids and build life sustaining colonies on Mars. I didn't anticipate that my phone would ring during that, by having it on, I'm sorry about that. And where global problems are solved by the quantum computer that tells us how to feed the world, preserve our precious national resources and solve climate change, all without civil conflict. Government dreams are presently somewhat constrained by a vision of data collection, use and management. The Australian government digital transformations agenda for example has promised a seamless digital service delivery for all Australians by 2025. One of its mandates is that behind the scenes data will be processed with the least possible manual intervention. Automation will free up staff to deal with more complex cases or presumably they'll just be sacked. The data 61 discussion paper, AI Australia's ethical framework notes the importance of accountability as a guiding principal but is somewhat circular in definition. It describes the responsibility as being one of those creating and implementing algorisms as being identifiable and well accountable. So when we talk about accountability in the digital space we're describing a number of things and each throws up a number of challenges to accountability.

First, at its most basic, we're talking about machine decision making using predictive algorisms and tools emulating human discretion with greater efficiency and lower cost. The decision trees for example, used by many government or business services to send you to the right, correct, to the correct information or department. Those annoying answer box or introductory services used by many corporate enquiry services asking you to pick 1, pick 2 or stay on the line for more information, with some added sophistication. Now these programs do offer the promise of efficiency. They also promise to preserve your personal information which is something most of us don't think much about and would probably consider a reasonable trade for goods and services, assuming there's no subterranean secondary trade in such information. So accountability in this context has been viewed through a lens of privacy and contractual relations. If you consent, then I can use your personal data. And as we will see that approach is fraught with danger. We're also talking about big dataset, harmonisation and interaction. For example a program designed to overlay satellite imagery, hydrology, coastal inundation data with locally recorded flood levels and the known habitat of endangered species and existing planning approvals will be extremely valuable, but will not consider impacts outside of the selected view or broader social and economic impacts. For example the location of the toxic dump in the zone you're looking at. These processes have enormous potential application across the whole of government, to all government payments and functions. It's the thinking that rolled out robo-debt recovery and is already being applied across numerous departments. In that case of course, a system that matched or mismatched ATO and Centrelink data was used to generate interventions, notices of demand and recovery proceedings.

Accountability in this context is acutely absent when government data or composite data is trusted as fool proof, and the means of producing a result is not available to scrutiny and the customer does not have the wherewithal to challenge the outcome. We're also talking about machine learning computer programs or the PA's of the computer world. These are programs that recognise patterns and improve their recognition with the input of further data, for example your Netflix's or Spotify keeping a record of your preferences and offering you products of a

similar genre. If you ignore the offerings as not suitable or of not of interest to you with time you expect those programs to learn and refine your offerings to our individual tastes. Thus Facebook builds a personal profile for you which depends upon certain basic information and as much personal information as you unwittingly feed into it about your preferences and habits. The more data you feed it, deliberately or inadvertently the picture builds. This can be your location at any point in time, your contacts with friends and associates, your internet browsing history, your emotional response to the posts of other people, even the amount of time you take to glance at certain items in your news feed, all building a remarkably detailed picture of you and each of your friends. Far more sophisticated then the advertising assumptions, and more complex then psychometric testing has ever been. Google, for its part, builds a model based on eighteen different demographic categories to build predictive models and throw up suggestions as you search for information. Is this useful and time saving or limiting and intrusive; potentially it's both. The scale of Facebook and Google's data harvesting, learning and commercialisation are staggering, particularly as most uses are voluntarily ignorant about default terms and conditions. And the potential use and misuse of that data to influence human behaviour entirely without scrutiny is frankly terrifying. Facebook is understandably very interested now in creating its own currency, Libra which will allow direct surveillance of every transaction and vast scope for corruption and money laundering in the digital sphere. Now a side story, my own worries with Facebook again, when my news feed stopped offering me ads about luxury holidays and began offering me incontinence aides. I initially assumed this is because I had turned 50 and so Facebook had clumsily associated anatomical disintegration, as you do. Instead and perhaps more revealing was that fact that I'd been searching on the internet for nursing care for aging parents. I was also talking aloud about physical incapacity and speech recognition software was no doubt honing in on key words and speech patterns to make this fine offering.

Finally AI also extends to some serious machine learning known as deep learning where programs analyse data continuously using human-like logic known as neural network to replicate human thinking. Now the holy grail of computer science is that a user states a problem and the computer solves it for you. The problem with a multi dimensional problem is refining exactly what is the problem you are trying to solve and once the program is designed there are endless refinements required trying to exclude the various junk solutions. They may be optimal but it's not really what you wanted. And so like the three wishes were granted by the gene in the lamp, the trick is to know it's all in the framing of the question. You asked me for true love, AI gave you a donut. You asked AI to save climate change and AI gave you Armageddon. The challenge for programs, programmers is there something, therefore

something called discrete optimisation. Being able to state the problem effectively in the first place, and then allow the generic solving technology to tackle the problem. The adaptations of deep learning are both exhilarating and terrifying with deep learning applying to massive amounts of data available. And these advances, these technologies have been credited with the ability of driverless cars for example, to tell the difference between a pedestrian and a lamp post or a surgical robot to identify and excise diseased tissue. Of the drone to identify military from civilian targets and manufacturing program to improve safety and industrial processes. And even a household device to translate human speech. They've been credited for inspiring the new space race, as China pushes towards minerals exploitation and outer space. Early experiments show promise but with some spectacular failures.

For example, IBM's oncology supported software attempted to use machine learning to identify cancerous tumours. It was ultimately rejected by doctors as unsafe. The system was trained using synthetic data, not refined enough to interpret ambiguous, nuance or what was called messy data about the patient health records. It also relied on local US medical protocols which were not applicable worldwide. The deployment and poor design of the software led to mixed diagnoses and erroneous treatment suggestions which breached the trust of doctors in hospitals and made them wary, next, for next time. So I think there are probably at least seven challenges to accountability, no doubt there are many more. The first I call the black box or no one can tell us why it really works. Computer science, scientists are in fact telling us they don't know how the machine learning systems work. The recognition and classification processes involved in machine learning process passes of pieces of data, ultimately spitting out results which identify a dog is a dog or a cat is a cat. But we don't know and we can't know whether the selection and classification processes are being manipulated in an unintended way. And programs for dog recognition do incidentally turn out cats as validated results. A missing step in the construction of machine learning models is the explanation of the logic expressed in comprehensible human readable format that highlights the biases learned by the model allowing AI developers and other stakeholders to understand and validate the decision rationale. This limitation impacts not only information ethics but also accountability, safety and liability. It affects our understanding or error rates and the limitation of outcomes, how those are disclosed and taken into account in subsequent human or machine decision making. In an attempt to address this the European Union General Data Protection Regulation introduces a right of explanation for individuals to obtain meaningful information of the logic involved when automatic decision making takes place with a legal or similarly relevant effects on individuals. Incidentally, for the lawyers in the room, they also require a human being to be involved in some point in an administrative judicial decision making process. It's entirely unclear how effective this is meant to be given our human instinct to assume that the machine is correct and leave the hard work to someone else. Without the explanation to explain the processes and black boxes, these rights will either remain meaningless or many applications of AI systems will be effectively outlawed. And if the text can't explain it to us or prevent it from doing so because of commercial incompetence arrangements, what hope is there for the rest of us coming along at the tail end with our box of laws and regulations?

The second challenge is what I call the absence of soul, that machines are inherently unethical. Machines are necessarily without inherent values, commitment to accountability or preference for a particular result. They are utterly without ethics but programmers and users are not. Programming reflects human biases and prejudices as demonstrated by numerous controversial cases where ethics, racial or gender characteristics are under-represented. In the original dataset for example those people demonstrating those characteristics will be treated as out liars and therefore treated differently. And we've seen numerous examples of this in crime prevention and response, for example where arresting police or bail justices form a view of a risk of reoffending because of the ethnicity or race of particular people. Evidence can also be manipulated or enhanced. These functions offend fundamental principles of the presumption of innocence, the quality before the law and are (unintelligible – "(ui)") upon a number of fundamental human rights.

In another instance well known in scoring resumes for potential Amazon employees, assessment tools were based on the available dataset of who Amazon was already employing, namely homogenous, male candidates where women and their resumes were assigned lower values based on biases in the training data. It doesn't sound to unlike the real world. Add to this the fact that only 27% of programmers are women and the bias has become more difficult to discern. Also in facial recognition or image classification false positives are likewise skewed towards certain ethnic groups, treated as outside the standard. And a recent Victorian application of the technology for a solar rebate scheme frustrated users with nearly a 40% fail rate, presumably reflecting Melbourne's multi-cultural society. A machine could also learn to be unethical. In 2006 Microsoft created a chat bot called Tay(?) with the aim of encouraging lonely people to interact with a program designed on the language patterns of a 19 year old American girl. Far from being the AI which with zero chill, Tay was bombarded with offensive interactions and learned to respond accordingly with racist and sexually charged messages and was shut down after 16 hours. Ironically inspiring an online campaign to #freetay. Similarly IBM's Watson began to use profanity after reading entries from their website, Urban Dictionary.

After the first rush of enthusiasm there is a growing awareness that purpose is important in design of AI and recognition that programs, like programmers, are not free from human bias, inherent in the design and selection what is normal. Far from removing the very human implicit or unconscious biases of decision makers we may well be imbedding the less discernible biases of datasets and programmers. The third challenge is that all rights are forfeit, in other words we gave it all away already and we'd do it again willingly. The sharing of personal data for public good is seen as the holy grail of public service delivery at the moment. If you know what and where people need things, you can deliver them with efficiency and avoid waste. However the very vexed question of informed consent remains.

When you need a government service you're not going to ask what you're giving away when you sign up and trust the privacy protections are robust and offer appropriate protections. And in this age our personal information is of anonymous value. Government and private institutions are seeking more and more data on individuals to share across multiple platforms. We have no effective choice, we need the service, we hand over the data and hope that it is protected. Surprising then to many that to know that that information is routinely pulled and shared with data collection agencies or third parties. Even more useful are your patterns of behaviour, namely your choices about your purchases and spending, your income, your online profile and your tolerances, that is the intrusion, your tolerance for the intrusion of advertising, your attention span, your preferences for the delivery of information and your individual emotional response to information, simplified by likes for example on a Facebook page or now with the added sophistication of love, angry or wow. Facebook's algorithm collects preference information. With ten likes it can fairly assess what type of person you are. With 150 likes it knows you better than your parents. Add to this the contents of your posts and your browsing history and you have a dossier of information that knows your fears, your emotions and insecurities better than you do. Businesses, of course, are salivating to purchase this information to target advertising to us and notoriously Cambridge Analytica claim to have used this information to target known and unknown fears and insecurities with personalised ads in support of Trump's presidential campaign. Facebook is listening in to conversations and asking third parties to create digital transcripts without consent. Now while we shudder at the thought I learnt only yesterday that the government's translation and interpreting service has now been asked to record calls from community lawyers to clients using an interpreter with no consent process and no option to opt out, apparently to aid interpreter voice recognition and identification. So the messages are increasingly targeted to us as individuals with huge potential for manipulation all fine-tuned to tap into the neural feedback loop and generate the sort of buzz associated with a production of dopamine. Uses are required in many cases to accept complicated terms of use to access social media, free Wi-Fi or government services and online purchases. Often the terms of use include a two-fold cookies policies, one mandated and described as basic that you can't interrogate, the other consented to by default which may, but you can unchoice, which may include consent to data harvesting, third party use and reuse or collation with other existing data bases. The terms and conditions offered for use of these basic services are usually unfathomable, permitting by default the marketing use of personal information.

Just an example, a health insurer encourages you to use a health app keeping track of your daily routines and fitness habits. Now this is intended to encourage you with motivation and time to exercise, time to prompts, but it's also keeping track of hugely valuable health data and then offering incentives or premiums if you agree to continuously update the data flow. The promise of privacy through de-identification and consent is also hopelessly inadequate. Standard form undertakings are to remove our names from stored or shared material and are basically insufficient as we can be readily re-identified by unique identifiers such as location information and browser history or by matching our de-identified data with publicly available datasets. If one recent article is correct it takes only two data points to re-identify someone using publicly available records. With or without your permission each of us is capable of identification thousands of times over every moment of every day. And in fact de-identification and encryption are effectively impossible and lead to a false sense of security. Touching on the other challenges briefly the next one is nothing is sacred and everything is corruptible and hackable. Intelligence agencies tell us and they have been telling us for some time that the cyber threat is real and that the methods used by malicious acts are constantly evolving. So there's a good chance that everything digital will be hacked or corrupted at some point and I offer you a couple of examples. Our laws compelled telco's and internet providers to retain metadata or digital access history of all uses for two years despite the concerns of industry and legal experts that this collection of data creates more of a security risk than operating without them.

Metadata can be collected from all sorts of devices, including the internet of things, and can be used to establish a detailed picture of someone's life, their daily routine, relationships, interests, preferences and behaviour. It can even reveal someone's location to whom they have spoken and for how long. Scores of agencies have sort access to that information on hundreds of thousands of occasions for a manner of purposes including identifying individuals for minor civil infringements. Last year it was revealed that hackers broke into the systems of more than a dozen global telco firms and stole huge amounts of data using multiple tools over many years and we've recently last year as well heard about the hack of parliamentary computer networks and the theft from the ANU of huge volumes of highly sensitive personnel data. So we have to recognise that vast harvesting of data creates a vulnerability and makes our data pools a valuable target. The fifth challenge is essentially that what the government wants, the government gets. In this world of post 9/11 very little will displace the primacy of national security priorities which has profound implications for accountability worthy of another paper or another series of papers. But taken just one example, with the erosion of (ui) on critical joint parliamentary committees, particularly the parliamentary joint committee on security and intelligence and politicisation of the response to the committee's recommendations in recent times. National security claims have taken precedence over all other legitimate protections, civil liberties, human rights and the traditional protections against over reach of the executive, the rule of law including open courts and judicial oversight of the use of coercive powers.

The next challenge is that Australian protection laws are not fit for purpose and there is a growing awareness articulated by Human Rights Commissioner Ed Santo, the ACCC and others that technological developments pose unprecedented challenges to privacy, freedom of expression and equality. In Victoria, the ACT and in Queensland the right to privacy is now protected by human rights legislation that does not create substantive enforcement rights. In the Victorian charter, Section 13 provides, a person has the right not to have the person's privacy, home or correspondence unlawfully or arbitrarily interfered with and the ACT and Queensland acts are in almost identical terms. So the protection is against arbitrary or unlawful interference. At the commonwealth level in the absence of a Human Rights Act the only direct protections are found in the Privacy Act which was intended to implement the privacy obligations under the ICCPR and OEC guidelines. In 2001 and 2004 the High Court and the Victorian Supreme Court respectfully held there was no cause of action in privacy. And more recently in (ui) and the director, the Transport Safety Victoria Justice Bell said that when we're talking about arbitrary unlawful interference we're talking about capricious, unpredictable or unjust interference which are unreasonable in the sense of not being proportionate to a legitimate aim sort. Interference he noted can be arbitrary although it is lawful. So it's more than a decade since the ALRC review of Australian privacy laws and five years since the serious invasions of privacy in the digital (ui) inquiry report. Our protections are lagging well behind the technology, and commonwealth protections are lagging well behind other states. In the UK for example, facial recognition technology has been challenged by an office worker unhappy that his image has been captured on two occasions by the South Wales Police. This case will consider article 8 of the UK Human Rights Act and judgement is expected in

September. And in San Francisco and Massachusetts facial recognition technology has been banned, while in Hong Kong protestors are taking matters into their own hands destroying facial recognition towers and cameras. Predictably not working.

The final challenge is that accountability is an illusion, but it's the blue pill that we're happy to swallow. The future beckons with a possibility of human 2.0 with life extension, genetic and robotic enhancement, implantables, injectables, biometrics and even a downloadable consciousness. We're facing challenges of extraordinary complexity involving the global climate, movement of populations, access to increasingly scarce water and mineral resources, environmental damage and unequal wealth distribution. We are merging our virtual lives with a non-virtual. Increasingly advertising and gaming are using sophisticated immersion experiences indistinguishable from real life even meeting our need for intimacy and love. And our minds it's fair to say are not particularly adaptive, we're still out on the Savana avoiding the lion and the temptation of each shiny new promise is irresistible. We don't comprehend the danger and we choose not to know.

Our daily activities, our most personal thoughts and preferences are captured and stored, fed back to us as marketing intruding upon our desire to be anonymous, private and unknowable. Meanwhile we're clutching at fig leaf regulations and laws to protect our privacy, our human rights and our rights to hold institutions to account, to insist on our side of the social contract. So clearly the Genie is out of the bottle, the question is how do we make sure our three wishes are worthy as we head towards, willingly towards oblivion. So in the minute remaining can I touch briefly on those methods that I see we need to hold back the tide as protections for accountability so that we have time for the commentators and to expand on each of these things. First and foremost we need education. We need to create a heard immunity through digital literacy. We need to know what these new systems are, what they can do, how they work and what the limitations are. We need to understand our vulnerability and we need to understand that masses of biodata is being collected about us every second of every day, that everything is hackable and prone to manipulation. Next we need the safeguard of purpose, that our data is collected only and retained only for specific agreed purpose. We need to adhere to the principle of safety first or do no harm and that as a matter of law and practice all data collected should by default be deleted rather than forgotten, then forgotten rather than de-identified, not shared rather than shared and be opt in rather than opt out. We need to improve our informed consent provisions. Consent to digital use is a seemingly meaningless and drafted by the same contract lawyers that have been drafting the conditions on parking tickets for years. In the context of digital use we need to assume the consent is mostly uninformed and even worse the appearance of consent creates a comfort blanket despite being legalistic and never read. We need a strong integrity framework because self-regulation has failed, with risk assessment tools and assurances and as with all corruption measures we need to be aware of ethics white washing. We need a national robust integrity commission with access to expert technical advisors and regular audits. In terms of law reform the areas of reform are numerous and worthy of its own ALRC referral. They included ministrative law, discrimination law, contract and consumer protections, the importing of the GDPR with enforcement mechanisms, electoral laws, corporations law, human rights and privacy, regulations in Code of Conduct, procurement and design standards, licensing for the collection and use of public data as a start.

We need to embed accountability to attribute responsibility for outcomes and decision makings made by the machines, with the meaningful disclosures and qualifications about the quality of data and processes undertaken. We need to review our privacy protections which are anachronistic and possibly obsolete based on an assumption that we choose to share discrete pieces of information for specific purpose and that further use will be constrained by terms. We need litigation test cases and at the end of the day we may need to blow it all up. We need to level the playing field and break up the monopolies. We need to maintain the low tech and no tech alternatives to anticipate the IT meltdown and the very different needs of people, those living in the remote, rural areas for example, the poor and those with access challenges or we risk entrenching the growing equality already experienced by 99% of the world's peoples. We need to work to disarm or reduce the ability of systems to interact with the real world with disincentives and penalties. We need to create reverse nudging or automatic counterpoints to a current manipulation, including well resourced public journalism. And from time to time we need to look out the window. Thank you.

#### Applause

## Madonna King – MC

Thank you Fiona, such a thoughtful address, and Fiona is taking her seat on the panel. I think you deserve both your own lecture and a bobble head. I was remiss too, in not acknowledging Alan MacSporran, who is with us today. Good to have you with us Alan. So much to traverse here now, isn't there? So let's welcome our panel, and in no particular order, Phil Green is Queensland's Privacy Commissioner. He has an extensive career in the private and public sectors, his legal career at Allens included commercial banking and finance insolvency, his central and agency experience in criminal justice, legal and economic policy with the State's

department of Premier and Cabinet, and most recently he headed up the small business division for the Queensland Government. Welcome Phil.

#### Applause

## Phil Green

Thank you.

### Madonna King

Associate Professor Brent Richards is Director of Innovation and Director of Critical Care Research at Gold Coast Hospital and Health Service. He's also an Associate Professor at Griffith and Bond Universities. His involvement today is crucial because he is working on understanding data in relation to clinical use, business KPI's and research possibilities. He is co-founded in TeleHQ which brings experts together to work collaboratively to unlock the potential that AI can bring to health care. Please make him feel welcome.

### Applause

Simon McKee is the Deputy Commissioner in the Office of State Revenue, a division of Queensland Treasury. Simon's particular responsibilities are to lead the enabling divisions of OSR. He has over 20 years' experience across all revenue lines and functions in state revenue offices and treasury functions including policy and portfolio reviews. Welcome Simon.

## Applause

And Scott McDougall, began as Commissioner of the Anti-discrimination Commission in Queensland last year and became the Inaugural Queensland Human Rights Commissioner this year. This was with the commencement of the Human Rights Act 2009 and prior to this he was the Director and Principal Solicitor at Caxton Legal Centre. Please make him feel welcome.

## Applause

Can I start with you Phil? So much has changed in the last ten years, as Fiona has walked us through. But if you think of Google Home devices, police routinely asking for dashboard from your car, algorithms driving our social media, do you think AI has raced ahead of accountability and given the seven challenges Fiona just outlined have we learnt sufficient lessons from the past ten years?

#### Phil Green

Absolutely not. I was just in awe of that speech, thank you, you really set the scene for someone who's not a tech person, it's like, I don't think you missed an issue that I've been aware of. It just, AI is rapidly out there in our homes, there's no question that Alexia and Google my home assistance are so cheap and they're in your home. But the underlying sort of data streams that they're developing and the people that are listening, the actual, now the privacy statements are admitting that the technicians are actually in the background listening to your voice that's being recorded. Hey Siri. So the challenges are immense. I'm glad you gave us some hope there. I was thinking it's usually the privacy person, one of our local practitioner's say they're the hand brake to happiness or the data security people that say no to everything. But it was a bit of a bleak world you were painting there for a while. I'm glad there's some hope. Stephen Hawking I think said this is either the best thing that's happened to human kind or the worst thing.

### Madonna King

So are you saying we haven't learnt the lessons?

#### Phil Green

I think the lessons that we need are so beyond our grasp right now and that multi-disciplinary approach that we need to the regulation is so critical. But building the awareness, getting our elected officials in the frame and getting the people to push them to deal with some of the issues is one of the critical things.

## Madonna King

You mentioned people and people are so important to, do you think in the last ten years there's been a (ui) change in people being more accepting of AI or more protective of their privacy?

#### Phil Green

I think there's still an awareness. People give their data away without much thought and yet when they've been disadvantaged through that or their identity is stolen they get a great wakeup call. So a lot of the people in the room and one of the reasons for this event and the privacy awareness events is getting people aware of the issues. Now the transparency of algorithms is so important, so this just cuts across the whole of the OIC agenda opening the code, understanding the black box, training this to be, to get the good outcomes and the good

thing about this panel is there's actually some positive outcomes particularly in the health arena, I think and in revenue that have been done ethically and responsibly.

## Madonna King

I'm going to move onto Brent and those health outcomes in just a moment but there is a difference in the community in the balance and you must see that as the privacy Commissioner. Where you have teenagers who we're worried are exposing them to too much on social media, then we go to our GP who says oh, don't say yes to the electronic sharing of your data. So where do we have to aim that education do you think?

### Phil Green

Yeah well it's interesting. I think the GP's are a little bit leery because of possibly the mishandling of the My Health Record and the communications. The benefits that could have been achieved if it were an opt-in model as it was from the outset. If the communication piece around the benefits that expected to be realised and the responsible sharing of the data. So I think GP's were reluctant there. Teenagers are pretty sophisticated. The work of the Australian Information Commission on this and the surveying is showing youth are quite discerning around privacy and settings and quite savvy. So I don't think they've traded away. They're willing to trade away in the right circumstances but there is certainly a strong awareness to it.

#### Madonna King

Okay. Can I move onto you Brent? The reach of AI I'm not sure we would have contemplated only a few years ago, but so much of our budget is now chewed up by health in terms of dollars. What could the impact on savings be of AI and how do we find out what's available?

## **Brent Richards**

We do think that AI is rapidly changes health care. We're thinking that it's, the size of the impact is probably maybe equivalent to antiseptics and antibiotics. It's getting to look that big. Okay, so there's some real value to be had and that's at a very time, we've got two major problems in health care. The first as you say is cost. At the moment 30% of all government money is spent on health and aged care. It's looking to be 50% by 2050 which either means we're paying 20% GST or we find a better way of doing business. And so there's that cost. The other problem we've got in health care is that we're drowning in data. Is that at the bedside

we're not managing to assimilate all the data we need to assimilate to treat people who are sitting in front of us. And so AI has come along to many of us at a really critical and important time to get there and particularly to allow people to get out from, literally from behind their computer screens trying to assimilate their data and to get back in front of the patients and to be able to talk. So there's both a cost component but there's a very human component to what we can do in the space.

### Madonna King

Yeah, and a scientific component, when you actually compare it to the launch of antibiotics, but the risk associated with AI is probably higher than the risk of the introduction of antibiotics perhaps.

### **Brent Richards**

Potentially yes, potentially no. I mean, yeah, the other half of my title is I do research, and so I come from a very strong research background, and to me AI is an incredible technology and just another tool. So we've introduced lots of tools into health care over the years. And we look at them, we test them, we trial them, we deal with them, get privacy around the data that sits there and we continue to monitor their use and to translate that research into practice. And so in many ways we just bring this in as another tool technology.

## Madonna King

How vital is it that the data be shared and how do we make patients more comfortable with that?

#### **Brent Richards**

It's, there's a couple of answers. The first is that there's a lot of advantage to patients as we can get some of the data together. There's an example at the moment with they're looking at the, diabetics eyes and have got recognition as good as an ophthalmologist. Now does that matter in Southeast Queensland, no, does it matter in Western Queensland, yes, does it matter in India where a third of diabetics go blind before anyone looks in their eyes, absolutely. Okay?

## Madonna King

Yes.

## **Brent Richards**

So there's some, some of it there's some major positives there in what we can achieve. The second thing is that the technology is also being built to privacy preserve. So there's three separate technologies that are sitting around, you know (ui) encryption, adversarial networks which will allow us to privacy preserve and still get our understandings. So I think that by focusing on the successes and showing that the technology also aids the privacy as well as the outcome, I think that that's where we move forward.

### Madonna King

All right, I'm going to come back to you but let me go to Simon now. Simon offline you were telling me the story of trying to find out why 20% of those paying land tax don't pay it on time. Tell us that story.

### Simon McKee

Okay. So it's part of our transformation journey and we haven't got time to talk about it today. But machine learning, we did a proof of concept where we said what is one of the challenges in the office and that was around as you said, why land tax payers don't pay on, average 20% of the tax on time, whereas other tax payers, about 2% do. So we partnered with one of our trusted vendors and stood up (?) the machine learning solution in about eight weeks. That's a supervised solution. So just to be clear there's open and supervised and listening to Fiona's concerns about machine learning, we feed that certain functions and one of them isn't incontinence pads it's actually around things like we remove, whether it's gender specific and things like that. So we're very conscious about that bias that you were talking about.

## Madonna King

But don't jump ahead. Tell us the story, so what did you do?

#### Simon McKee

Okay, sure. Sure, sorry I tend to do that. So basically the machine learning that we stood up predicted, so it crunched through something like 187 million records, 97,000 tax payers, ten years of information in six minutes. Now no human that I know can do that.

## Madonna King

No.

## Simon McKee

And so the real power of that is it releases our people, our staff to be more engaged with our tax payers. By the way that's what they want to be called, we found out through design sinking, it's not a voluntary relationship they have with us. The other thing we found out that...

### Madonna King

Didn't need an algorithm for that.

#### Simon McKee

Surprise, surprise. Our staff want to be released to do more interesting things.

### Madonna King

So what did it find? How did it help you? Did the rate of non-payment go down?

### Simon McKee

It did. So initially through the proof of concept it was about 5% reduction in debt. But the really good part about that is it predicted in, with very limited internal data and so we've now obviously had the external data and well it predicted in more than 70% of cases when somebody may default on their debt. Now the good news story about that is it's about helping tax payers. So if we can get ahead of the game we then intervene, we contact them and we're here to help of course. But it's around saying you don't have to pay penalty in tax, sorry penalty in interest, you have to pay your tax. But if we know, we predict particular tax payers that are likely to default we can intervene, we can reach out to them.

## Madonna King

So obviously it will be expanded to non-compliance but what other...

#### Simon McKee

Sure.

## Madonna King

...kind of areas can you see it being used in and I'm thinking for example, I don't know, natural disaster planning?

#### Simon McKee

Yeah, absolutely. So we have an aspirational goal at the moment, it's not even on our road map, but it's around saying well can the machine predict, can it consume our internal transactional data and external data such as weather events, consume that data and then predict a particular tax payer in a particular area who may be affected by a natural disaster. And then what we do is might ping them a message assuming the telecoms are up and running, we might send them an SMS or a text to say, look we understand you're in a particular area, you're affected by a natural disaster, don't worry about paying your tax at the moment, we'll reach back to you, you know in a few weeks or a few months, whenever you can or you can contact us.

#### Madonna King

I'll come back to you about the processes behind it...

#### Simon McKee

Sure.

### Madonna King

...and whether you had a plan for something that if something went wrong. But Scott can I come to you? Human Rights Commissioner and I saw you sitting there and a couple of times Fiona was talking and you were just shaking your head. What were you thinking?

## Scott McDougall

Oh, that was the bit about recording conversations with community legal centre lawyers as I was one and their clients, that's just completely off the dial as far as my outrage goes, that's just unbelievable that that would happen. Yeah so, Fiona, I'd like to congratulate you on a fantastic lecture by the way, that was brilliant, a lot of things resonated with me, particularly the reference to crazy brave, which I think is a great way of explaining our ambitious project with the Human Rights Act. But the other point that I think is highly relevant is that question of arbitrary-ness. And that's going to be an issue which, you know when the computer says no, as in Little Brittan, that's likely to be arbitrary and to counter that there has to be embedded in AI a right to have a human review as they have in the EU. And I also think that education is a key component of this. The Human Rights Act has, if you take the time and look at Section 13, it's a beautiful little provision that gives a neat decision making framework that is, applies a proportionality test. I personally believe that that test should be taught from primary school,

secondary school and definitely a mandatory subject at tertiary level, so the engineers who are preparing these programs understand the need to actually engage and think about the human rights that are being impacted by their work, and look at less restrictive options to get an appropriate balance.

#### Madonna King

That's an important area I guess. By the nature of AI does it mean a diminution of the human?

### Scott McDougall

Well I mean it doesn't necessarily, because there are, the potential benefits are limitless and there's so many ways that heals, human rights can be enhanced.

### Madonna King

Yes

### Scott McDougall

But you don't have to look very far at all to see just the horror situations that are just right on, they've already arrived. I mean Robo-bot, Robo-debt sorry, is, that's really disturbing.

## Madonna King

Yeah. Well let me ask about Robo-debt in just a moment, but Fiona mentioned three words that stuck out to me, one was, well lots, but empathy, soul and purpose. How do you think we use AI going forward making sure those three attributes are still enveloped?

#### Scott McDougall

Yeah well going back to that point I just made about the proportionality test and Human Rights Act, really it comes down to empathetic decision making, it's putting a place, putting yourself in the place of that other person who's affected by your decision. That's really what it's about, and I think those concepts need to be taught to our children and to everyone who's working in a high risk area where there's risk of impact.

#### Madonna King

It's also about leadership and culture isn't it?

## Scott McDougall

Yeah, absolutely. And you know the Human Rights Act only applies to government entities. So that's another limitation. We're right at the back end of the process and Fiona made reference to the limited enforcement provisions in the act. What really needs to happen is right at that front end in the design of AI and Ed Santo, my commonwealth counterpart has suggested the establishment of a responsible innovation organisation that would have coercive and non-coercive powers including a certification of a, of human rights compliant AI. I think that's an excellent idea.

## Madonna King

Would you support something like that Fiona?

## Fiona McLeod

Absolutely and there's a lot of work that has to happen in the human rights sphere, for example we need a Human Rights Act for the commonwealth. Not just for privacy but for all manner of rights that are currently unprotected and there's no enforcement mechanism for them. You see this emerging with the debate at the moment about freedom of speech and association, freedom of religious expression conflicting with non-discrimination rights. We don't have a way to navigate through these rights at the moment and a charter or act would give us that navigation aid.

## Madonna King

It would be a navigation aid, it wouldn't be a panacea for the problems with AI though, would it?

## Fiona McLeod

Well no, but it's, if you start as Ed Santos urged us, with a human rights approach to Al, then you are human focused rather than outcome or product focused.

## Madonna King

Yeah. Simon, back to you. What kind of things did you do in terms of leadership and culture before embarking on your land tax?

## Simon McKee

We partnered with Queensland University of Technology, particularly around their digital area. We exposed our, it's the best way to explain it, exposed our leadership to disruptive innovation thinking. So for example we asked them how we could make things worse, how could we make, yeah. So that was an interesting conversation. I remember...

### Madonna King

How did it go?

#### Simon McKee

Yeah, it was interesting. I remember Professor Marek Kowalkiewicz which, who led that, walking in unannounced and basically said why couldn't Google run the tax office? And of course all the leadership came up with 100 reasons why not, and he answered pretty much every one. The one thing he failed on was around that trust and that, basically that you wouldn't trust your data to Google, and that social licence. So for us that's what it's about. It's a continuing thing, leadership training, we have, you know executive coaches and we have group coaching and it's about moving our mindset as I said from that compliance first approach to client centricity. And if you walk into a tax office, in our office, into a room, you might see a pair of sparkly shoes on the desk, so that's just to remind people every time they walk in that our focus is the clients.

#### Madonna King

I like that. Can I be a bit...

#### Simon McKee

They're mine.

#### Madonna King

All right, with that answer I am going to be a bit cheeky. Can I ask you what you learnt personally in terms of leadership in taking on this area?

#### Simon McKee

Thank you, I just did a job interview yesterday, so that was very topical. It's around mindset, absolutely. So it's the biggest blocker and the biggest enabling for us. So as you might expect, and I think it's stereotyping public sector leaders, but, and I think it's wrong, but the fact is that

they have a particular mindset. So it's about changing that mindset. But with that comes accepting some degree of risk and that doesn't sit well with bureaucracy particularly in times of transformation. We run Agile and there's risks with Agile but it tends to run contrary to that, that mindset.

### Madonna King

Phil, can I go to you? We've seen two recent reports by Arcola (?) and Standards Australia on the importance of responsible implementation of Al. Where do you think compliance and public expectation sit alongside each other here?

### Phil Green

I think, yeah, a pure compliance test or mechanism isn't enough. It is, the critical piece is this education and it's great to have OVIC here, they're leading, adding to that literacy and public thought piece with some, a launch in Victoria on Friday. I think that we really need the awareness first and we also need to make the ethical decisions about where we draw the lines. You know what, how much of it, how far do we get away from the human and you know the possibilities are endless and this technology can be absolutely neutral, it's how you design it and how, so in Rachael's opening speech, that design approach or privacy engineering but it's also the data security, it's the ethics, it's the human, keeping the human in control. And I think the getting it wrong piece you see in Hong Kong right now in the marches, people chopping down the smart poles, not happy with the smart cities. We here in Brisbane right now erecting the poles. Our, if you like, extinction rebellion, people haven't started chopping them down yet. But that's a true sign I think of where you've got it wrong and we've had some lessons in federal implementation, luckily I don't think at state level, you know we're really in the early days of dabbling with Al. But where you get it wrong and how you learn from that is absolutely critical in taking the public with you to achieve the benefits.

#### Madonna King

Fiona, you just wrote something down. I'm hazarding a guess it wasn't the shopping list. But as Phil was saying that, what did that prompt you to think?

## Fiona McLeod

What I wrote down was recognise the shortcomings. And our inclination is to trust what AI throws up for us as immutable and trustworthy, that's just our instinct because it's shiny and

exciting and there's great promise in things that AI can do. But what we need to embed is that recognition of shortcoming, qualifications, qualifications with the people who are designing, qualifications of the data that is going in, qualifications about the outcome or the validity or reliance on the shortcomings of the programming itself. And I think we're not, the reality is we're not going to say stop everything, we're going back to the bush. The reality is that with government rolling out these recovery programs, with looking at ways to implement government action, well it's happening too fast and it's all too shiny and new, we won't be able to resist it. But we can build in those protections now and do so quickly and take a holistic approach to what else we need to do and get ahead of the eight ball.

#### Madonna King

You mentioned outcomes, and Brent AI is expected to add 13 trillion dollars to the global economy over the next decade; that is huge. And obviously people need to understand the public benefit attached to it, but what's the role of the private sector here particularly in relation to health?

### **Brent Richards**

Well I think it's moving that fast that it's very hard to manage it by what I call the normal procurement processes. And frankly, neither the public nor the private sector have all of the knowledge to make us work hard in this space. So you end up in a much more of a partnership role. Because is what you'll often have in the public sector and that's where your subject matter experts will reside and they become important in terms of making sure you're giving the right answer, that what is coming out is not gobbledygook. Having said in front of numerous greens trying to program AI I can tell you it's not that good most of the time. It's a lot harder to do it well than most people think. So and the private sector bring a lot of that technological expertise and it's only the partnerships that I think that are really going to move this far at the speed at which it needs to move and yet still maintain the control. Because if you look at what we're doing in health we've got a very strong research focus. That keeps that under a level of control that becomes manageable. So I think that partnership becomes critical.

## Madonna King

So does timeframe I guess. One of my favourite jobs ever was writing a biography of Professor lan Fraser who developed the science behind the cervical cancer vaccine. But from his and his co-scientists' discovery, to it being on the market, was more than a decade. How will that change under AI and how much of a role does the private sector have there?

#### **Brent Richards**

I think that there'll be a level of co-founding based in that, that's the first thing. Secondly is that AI is moving that fast is that you, really (ui) on your networks only came about in 2012, okay, so they're not that old even though AI was initially (ui) in the 50s. So I think that waiting that ten years is no longer an option, and so we've got to work out how we manage a much more fast moving process. The big advantage we've got is that AI is built on data and that means we're already collecting the data. So our ability to monitor what the outcomes are and continuously improve are far better than what we've had in the past.

## Madonna King

Are we working well enough together as levels of government and even university sharing this information?

### **Brent Richards**

Not necessarily. I think that there's a lot of our views, yes, there's a lot of misunderstanding in the space in terms of (a) what's possible and (2) what's right under legislation and what can be done under legislation and as well as those privacy preserving techniques. So I was talking to the chief data scientist for New South Wales recently who said, he presented to an audience a completely synthetic dataset, completely synthetic and there were still people worried about the privacy. And you go well that's an interesting, it's an interesting dichotomy and view.

## Madonna King

How do we fix that though?

#### **Brent Richards**

Some things are fixable and some things we've, you know we need to keep the education going but nor can we let it hold us back too much, simply because the advantages we've got at the other end, properly managed, are extraordinary.

### Madonna King

Scott, Brent's talking about the advantages at the other end. I'm wondering if you see in your job, an equity issue here, that some people will have access to this and some people won't.

## Scott McDougall

Yeah, and I thought Fiona's point about having low tech options, I mean that's something I used to see in my old job at Caxton Legal Centre, we had a lot of older clients who, that their way of keeping on top of their budget was to put all their bills in a tin can that they kept in the kitchen. And then they just wanted the ability to keep doing that and just write, some of them writing cheques and paying for their bills. And they were really struggling to come to terms with, you know the digitised access to services. And it's a, I think it's a really good point, that need to maintain that ability. Another issue I think, that I really resinated and it's related to that is this idea of the quality of the consent that is given and I really think it's an area that's ripe for legal challenge. Just the other day I was, you know seduced by the click Baden, the guardian website and it comes up with you know we're using a cookies, do you press the button, yes I'm okay with that, of course you're going to press the button...

## Madonna King

To read it.

## Scott McDougall

...because the alternative is to spend God knows how long sorting through the fine details. So I mean that's not real consent. So they're the challenges and I think there needs to be options that cater for everyone's, you know capacities and abilities.

## Madonna King

That's a really good point that I hadn't thought of, but, and just going on that, for those of us who aren't lawyers you talk about a beautiful Section 13 in the Human Rights Act, to a person out there how does the Human Rights Act actually protect their privacy in the world of Al? What's the process of projection?

## Scott McDougall

Well you know and unfortunately it is, well it imposes an obligation on public entities to act compatibly and to give proper consideration to human rights when they're making a decision. So it's hard to see how you know machine learning, algorithms can give proper consideration to human rights. I, so that's...

## Madonna King

Well what does proper consideration mean?

#### Scott McDougall

Well you know the, that's a good question. Case law from interstate says you have to you know come up with a pragmatic, given the amount of decisions that are made every day by public entities it's got to be realistic. But the more serious the issue the greater the impact on human rights, than the greater quality of proper consideration. But you have to turn, turn your mind to the human rights that may be involved and the neat provision I'm talking about really gives, it's a set of formula that you can step through for weighing up the importance of the right, the nature and importance of the limitation that's being imposed on the right. Whether there are other ways of achieving that same purpose without impacting on the human right in the way that it does and that's the critical part of the section, that's the section I like the most. So you have to look at other alternatives to what you're doing. In the AI context that maybe about giving genuine options rather than just being forced to consent and to go in with no other choice.

### Madonna King

What's the punitive action when there's a breach?

#### Scott McDougall

Well that's, yeah, I mean hate to disappoint any lawyers who are wanting to make money out of the Human Rights Act, there are no damages available. So very, very few, but I mean you can be, you know Paul Keating would probably describe it as being whipped by a wet lettuce, but I can, and the Commission can, publish reports about public entities and...

## Madonna King

And name the entity?

## Scott McDougall

Yeah, it's a naming and shaming provision if you want to call it that. And we're banking on the risk aversion of public entities actually, that's our main, our main stick.

## Madonna King

But that can be a deterrent can't it?

## Scott McDougall

Yes, it can be.

#### Madonna King

Of course it can, for...

### Scott McDougall

But looking at, you know she was saying, I was reading that Google invested 22 billion dollars in Al last year. I mean this is a huge tidal wave coming, and I feel like a speck on the beach.

### Madonna King

Do you have a Google Home device at home?

### Scott McDougall

I don't. I mean I have to say I'm, I really, look I feel for my kids who just didn't get the chance to grow up like I did, with the freedom, without having the technology, and you know, I could see all the benefits but I think, you know they're unlimited as we've talked about but, you know I don't know, part of me is hoping for the, for the day when it all falls over and we can go back to having communal living again.

#### Madonna King

Brent, I know you want to say something.

#### **Brent Richards**

But I think we've learnt a lot along our pathways in how we manage a lot of the stuff. Yeah we've, if you look at our old research in health care, okay, we had very bias research, okay. We were working, we were excluding all sorts of people from our research, you know basically, before about ten years ago if you were under the age of 40 and female than no drug had ever been tested on you before it came to market virtually. Why, because they were always excluded. So we've got huge bias in where we've come from. And so we need to learn from that. And I think the, if we can learn from those lessons and you go well this is actually something we've been doing all the time.

## Madonna King

Yeah, it comes down to balance.

## **Brent Richards**

How can we bring that in and also the tools that I'm seeing in the AI space now which are able to detect bias is something way better than I've had access to in a long time? So it actually makes me feel better about some of what we're doing than where we've come from.

## Madonna King

Phil, AI really has been the domain of data scientists to this point. How important do you think it is for it to work, for there to be a more general expertise to reduce fear?

## Phil Green

Yeah, well I think skills in a lot of these areas are going to be in shortage and high demand. So the regulators need them to keep the, the big multi-nationals honest, the, particularly in competition law I think the ACCC has laid down the gauntlet and I'm hoping to see OAIC get some bigger powers and some bigger fines because I think that's the only thing that gets the attention of those multi-nationals. The data scientists get really excited about some of this and the open data movement, you know we stand up for that transparency and openness is one of our underlying jobs and I think from a good government perspective and transparency that's critically important. So they can help us educate the public, they can help us present the data in compelling ways to make the cases and to manage it then effectively and tame it to the betterment of humankind and to avoid the pitfalls that are definitely multiple out there.

## Madonna King

So going on the back of that Fiona, can I ask you, when does an organisation do you think in your mind know when it's appropriate to use it and when it's not? And I was trying to think of an example and maybe it's not a good one, but you know could local government, local council's use rate payer information to offer insurance for example through a third party agreement? When do they know something is right and wrong?

## Fiona McLeod

Well if you took the approach that the local government was trying to save some money, then they may well want to do that. If they look, took an approach that they're there to provide a service to their rate payers then they might take a different approach. So it depends which way you're coming from and they might be able to find an amalgam of both approaches to get a solution that's ideal for both.

## Madonna King

Fiona's answer would suggest this is a very grey area, legally.

### Scott McDougall

Yeah, I mean I think it's fraught with grey areas, you know and until we get a strong national and international, I think you know there's obviously a need for an international framework. Until we get that it's going, and even when we do it will continue to be grey just by the very nature of the technology I think.

### Madonna King

Phil, can I ask you, as Privacy Commissioner, there has been quite a loss of trust in Australia, if you look at our royal commissions into age care, the banks and the churches, do the mistakes that happen have to become much smaller before we trust AI for its benefits?

## Phil Green

Yeah, well that...

## Madonna King

And I was tossing up whether to ask you or Brent.

#### Phil Green

Yeah, well I think in that health arena, if you're a patient and you are subjected to AI and it has a harmful impact, then that gets your attention very quickly and your family's attention. But I think really the attentions have been on these big, big global things. So the Cambridge Analytica incidents really heightened some awareness in terms of the very democracies that we rely upon, to then focus, you know this technology for good. So if you can't trust your government and this is you know why I think this Solomon lecture is so important and to have someone like Fiona's calibre here this time is, it's perfect timing because the very foundations of focusing government for good and the openness and transparency that we need to do that and the challenge that AI presents in doing that is, it's just mission critical right now. And I think you need to think locally and globally but we're in a, we're in this global international world, the data flows and the breaches are international and it's great. You know OAIC has focused on Libra and Facebook right now, that's a great global challenge. The regulators and privacy are actually dealing with that internationally. So the US, the UK, EU, Australia, we're

in there for the good fight. But it takes that kind of global approach and the big stuff to really focus attention and to I think get people power motivated.

## Madonna King

Does it, because can I go to Brent, if I see a headline in the paper that my medical records could be among those that spilled off a truck along Old Cleveland Road this morning, that can have a huge impact can't it in terms of support?

## **Brent Richards**

Yeah, and that's, dare I say why we shouldn't have paper records and why we should all be on digital records, it's very hard to spill it off the back of a truck if it's secure. I think what's going to help develop the trust is the explain-ability, okay. And we do need to separate out, there are many different types of AI and many of them are very very easy to explain. The decision tree methodologies are very explainable and it's only once you get down into some of the very deep convolutional neural networks that it becomes harder. But there are explainability tools being developed because of, particularly because of GDPR.

## Phil Green

You guys have tests as well.

## **Brent Richards**

Yeah, absolutely. So I think, yeah I mean I've written a paper with some explain-ability pieces in it. So I think the explain-ability piece is critical, it's actually not as hard most the time. You can use the simplest possible algorithm as explainable and still actually get a really good answer.

## Madonna King

So how did you do that explain-ability piece Simon, and when you said you looked at the worst case scenario, what was that?

## Simon McKee

I don't particularly want to disclose that today, it would frighten people. But, well...

## Madonna King

See that just really makes me want an answer.

#### Simon McKee

Well tax system fails, no taxes, no essential services, no infrastructure.

#### Madonna King

So it wasn't a personal thing, it wasn't that people's land tax records would be...

#### Simon McKee

No, and going back to the point, I mean we had an incident where one of our contractors records fell off the back of a truck literally. So look can I just go back quickly to the speed of change before I answer that?

#### Madonna King

Yeah.

#### Simon McKee

We can dial that up or down, we control that, so it's not out of control. So for example on our road map was facial and voice recognition and we know that other agencies do that. When we went surprise, surprise, we asked our tax payers would that help, overwhelmingly they said we don't trust it yet, we want a bit more time, so we took that off our road map, as simple as that. In terms of we, where we have a discretion in the law the machine doesn't make that decision, it cannot make that decision, we're clear about that. So for example, a default assessment applying penalty and interest, the machine cannot make that and we're quite clear about that. It might handover options to an operator who will then bring that empathy to play as well. So that's, that's, I think that's really important to understand. And in terms of just picking up on what Brent was saying before, with biases, biases is not new. I mean there's, McKenzie in June, I think had a report about, in the UK where people were being selected for doctor's entrances, and it was bias against women and ethnic people. The paradox that was is that when that surfaced and it was dealt with they discovered that the humans were more bias than the machine. So I'm not suggesting that that's a positive, I'm just saying I think we need to drill down into the cause, cause or factors of these things. And I agree with Brent that when, for example, and I'll answer your question now Madonna, we're working with the vendor because ultimately the commissioners decisions are object-, can be objected and appealed. So if I'm sitting in front of a Supreme Court Justice I want to be able to explain how we arrived at that decision. Now we can from the human onwards, it's about, the machine gets fed certain data so we can explain that but the algorithms behind that we need to explain that. So we are working through that with the vendor to make sure that our first appeal, we haven't got one yet, we can actually hit head on.

## Madonna King

Okay, thank you. Can I just look forward for a moment and maybe if I start with you Brent, ten year anniversary of our Right to Information Act and our Information Privacy Act here in Queensland, it's probably almost impossible to even conceive what we will think AI will have delivered to health in another ten years' time. But in three years, if we're sitting here, what kind of, will we be talking about in terms of health?

## **Brent Richards**

I think we'll see a lot more, I use the term augmented intelligence in health care, okay, as, although the technical term is artificial intelligence. We're augmenting decisions, we're not replacing them, okay. But what it will mean is where we've got areas of shortage in specialist capabilities then we will be able to back those up with tools much more frequently in an AI basis than what we had before. So the concept of having, there's a thing called OCT which is a fancy way to look at the back of a retina. In the UK they've managed to make an (ui) as good as a retinal specialist at the number one eye hospital, Moorfield in the UK. Now I could put one of those machines in Charleville, okay...

## Madonna King

Yes.

# **Brent Richards**

...and get that level. So I think that we're going to see that. Because what we're going to see, I'll call it a growth from the bottom, it's not necessarily the really top end, you know as people call it the sexy stuff that's important but it's actually improving the base level of care that is what we're really going to see.

## Madonna King

Does it also improve the other things? Will we in three years with the adoption of AI have much shorter waiting lists, more women surviving breast cancer?

### **Brent Richards**

I think that, yeah some of those treatment options will be there, the personalisation and a thing called the digital twin technology where we actually get to personal care a lot more. That I think we're going to see that coming of age in the next three to five years. So I think those changes are there. The other thing is that health is a massive business, okay, I mean our hospital alone is one and a half billion dollars a year. Okay, there's a lot we can improve at the back end, based around AI, and there's some work we're doing in that space, which will actually help to free up money to actually provide first line care. The other thing that, that as an aside, you're talking about breast cancer, there's again some done recently where they use a chat bot to help people understand. Why, because we just don't have enough clinicians to spare the time with the people.

### Madonna King

I'm sorry, but that lacks empathy.

#### **Brent Richards**

Well you may, so it was interesting though, they actually looked at, they actually asked the people, and they got a 93% satisfaction rate because there was always a human failed that capability. Because what it meant is they asked more questions, because they were not worried about you know, occupying the clinicians time, they were going I just want to ask the same question over and over and over and keep hearing it.

## Madonna King

We keep reading where immunotherapy is that, the thing that is really helping cancer survivors. It is using AI, or could it actually really advance with the addition or AI?

## **Brent Richards**

Al is coming in those spaces, drug development is certainly getting there in Al. Understanding complications, again personalising it is improving remarkably. And even working out which drug combinations work, which, when you get the bigger datasets, you start to get this serendipitous combinations and suddenly you don't see one. So if I see a complication once

a year in my hospital, okay, it's happening once a week somewhere in Australia. If you put all those datasets together we're going to recognise that. I'm not going to recognise it once a year.

#### Madonna King

Yeah, that's a very good point, thank you. So that's in the health area. Simon can I ask you presumably in three years everyone will be paying their land tax on time.

### Simon McKee

They already are.

### Madonna King

They already are, so how can you see AI being used in the Queensland Public Service in three years in ways that the rest of us may not see today?

### Simon McKee

Okay. So last week there was a panel at QUT which was about government 5.0 and again Professor Marek Kowalkiewicz is running that, and I was fortunate to be on that panel. A lot of really good speakers around that very question and it's around about personalisation without being creepy. So, so for, so when we asked our, in these design thinking workshops, another thing we learnt from our tax payers, they're not clients as I say, they don't want us to be creepy, they want to know what data they're taking, how we're storing it, how we're orchestrating it. So for example on our road map we now moved our data centre to a government only secure one in Canberra. So it's the best gold plated data centre in Australia. So we actually listen and respond. So to answer your question we don't know, we have a road map, we're continually changing that because we're running Agile and we believe that you know as new technology comes along we'll look at it and if it suits our clients or our tax payers then we might adopt it. But of course within the funding envelope of government they've got to continue to invest in technology because ultimately there's a payoff. You know (ui) say that if you don't invest in technology then of course you're going to, you're going to stay where you are and potentially go backwards.

#### Madonna King

But can you see AI being used across the departments in a way that will fundamentally change revenue raising for example?

## Simon McKee

Yeah, absolutely, we do that now, I mean in a sense of, you know robo-debt. I mean that's just pretty dumb technology. I'm not suggesting the action is, it's simply data matching, it's not machine learning. If they use machine learning there may be a better outcome, really. So yes we see, we connect the cross government, particularly revenue officers, ATO, state revenue offices, other government agencies, but we only consume the data we need. You know, I can only speak for the OSR. So yeah I think they'll be an increase in that, and trying to leverage that. New South Wales is very good at it. Their shared services, but they've got a, actually they've got, we've got great ministers. They've got a really strong technological minister who's actually really driving that. So you spoke about the chief scientist there, Oppenheim, Mr Oppenheim. Yeah, so I think we can learn a lot from New South Wales.

## Madonna King

Phil, will you be too busy to be on a panel in three years discussing this, or how do you think the privacy debate will sit then?

## Phil Green

(Ui) is going to solve it all in Victoria for us. I'm seeing I think we need enhanced powers as regulators to deal with this and I'm hoping that the federal Commissioner will get those and bigger fines, because I think really the monopoly power behind bad data, that those data points that are necessary to take good public data or open data and extract ridiculous profits out of it or ridiculous bad outcomes out of it. Those risks are going to accelerate. So I think we're right to be wary of Libra, I think we're right to be wary of handing over public benefit goods of data to the big data monolithic companies like Amazon, Google, Facebook. I won't single out Facebook, I think you know people are on it, I'm not sure if Fiona's still on it but, and I have an account, I'll admit that I use very judicially.

# Madonna King

Siri just asked a question.

## Phil Green

Yes.

### Madonna King

Okay, so...

## Phil Green

So I think we'll see a more joined up and the great thing is we've got all the information commissioners across Australia here right now. We're working on it together. We realise there's a big challenge. I think it's even bigger than I'd ever thought from Fiona's speech today but I think we're up to it. I think we can harness it for good. I'm a glass half full person, still hopefully, but there's massive challenges and we do need to work together.

### Madonna King

Thank you, Fiona how do you want your Solomon lecture to be used going forward?

### Fiona McLeod

I think we're in a very exciting space at the moment, and I want to recognise that human beings are not particularly adaptive, but when we do adopt we need it to be messy and chaotic and we need to have our noses up against it in order to make that change and evolve. And that's just the nature of human beings, and that's what the behaviour scientists will tell us. What I think we need to do is tap into the multi-disciplinary teams that people have been talking about in order to solve a huge conundrum for human beings and get the best out of this technology with so much promise. And that means not just computer scientists and engineers and lawyers who as I said tag along with their box of rules trying to fix things afterwards, but it means we've got to involve those behavioural scientists, the philosophers, the poets, the psychologists and all the rest of us because we can't solve this just from a regular tree approach. We can't solve this just by saying stop what you're doing, that's not going to work anymore. And even if we bust up the Facebook and Google monopolies, new Facebooks and Google's will arise in their place. So I would like to see a holistic and exciting approach to all the bits and pieces of this new game of go that we're facing. And the computers will be out beating us as the go masters are now beating us but hopefully we can be working in tandem with them to solve the problems together.

#### Madonna King

Thank you, and on this tenth anniversary, can I give our new Human Rights Commissioner the last word?

## Scott McDougall

Yeah, I just wanted to pick up on a point that Simon made about the ability to control the speed. I think that is a luxury that government departments may have that, you know, the private sector may feel that they don't have that luxury because of you know commercial imperatives to move quickly and to keep up with their competitors. But I thought that was a really interesting point and I'll have a private conversation with Simon later about the reasons why they did decide to actually embed humans in their process. What were the rules, what made them do it because we can't just rely on the goodwill of departments, we do need a framework and some rules that are going to protect all humans in Queensland and there's five million humans in Queensland, they're all protected now by the Human Rights Act and I want you to all go home and read the Human Rights Act tonight. Thank you.

### Madonna King

Especially that beautiful Section 13. I was writing down the words that were commonly used in our conversation today and it kind of is a perfect summary when we look at process, thought, leadership, empathy, education and having a narrative wrap around it. Ladies and gentlemen can you please put your names together, hands together.

## Applause

I think you probably all deserve your own bobble heads. And now could I invite Anna Raunik, the Executive Director, Context and Client Services at the State Library of Queensland. In that role Anna's responsible for the development of the State Library's collection and client service offers both onsite at South Bank and online and I'll ask Anna to provide our closing remarks. Thanks Anna

## Anna Raunik

Thank you Madonna. Good morning distinguished guests, ladies and gentlemen. State Library is delighted to be a partner of the Office of the Information Commissioner in supporting today's Solomon's lecture and helping mark the tenth anniversary of the Right to Information Act and the Information Privacy Act. Thank you to Fiona McLeod for your insightful keynote. My thinking as I was listening was like, I was thinking can we say we're there yet, and we

obviously cannot say we are there yet. But we're clearly moving towards that aim, and education and understanding is fundamental.

We need to understand how the black box works and it was a bit chilling to hear that we don't always and we can't find those magical people that will explain how that black box works. I thought it was powerful for most of, I assume most of us here are public servants, so thinking about how this topic affects the work that we do but we're also members of the public, uses of the services. And I wondered if people were thinking about checking their phones and seeing how their geolocations were turned on or off. Looking out the window, a fantastic way to finish the presentation and considering how we're going to continue to build or rebuild trust with our community.

Thank you also to our panellists, and of course Madonna for a very insightful conversation, it was great to have time to explore some of the issues that were raised and again here I think it's powerful to discuss not just the challenges and to be reminded of the opportunity. I like the move from maybe artificial to augmented, that might reduce some of the fear but it's clear that it's not going to go away and how we implement this service is part of it. The idea that we need to understand as humans the value of our data when we're online and when we're not online and that the challenge is to really build understanding and build that into our education processes, not just for youth but for adults. I wonder if like AI we are as human's builders and developers learning from the past to do better. And how do we build and I think the acknowledgment that their empathy and bias is also a human trait that we need to build on and not always trust implicitly. We're thrilled that today's lecture will be archived and made freely available in the State Library's catalogue, and this morning we were wondering in ten years' time what will people think of this conversation, will we, will they be considering how wise we were or how naive we were, and I think it's probably a bit of both.

The very foundation of a library comes from the idea that information should be shared democratically and equally. State Library is committed to free and universal access to information, transparency and honesty. We have a very strong role in building literacy across the community, particularly digital literacy so our involvement in that space is fundamental. As a leading collector of Queensland's documentary heritage our collections help inform a deeper picture of Queensland as well as providing a safe space for difficult conversations both onsite and online. Our collections serve multiple purposes from supporting a journalist's research to informing a small business owner or conveying childhood recollections. If you're not familiar with our collections and services I invite you to visit our website. If you have time after today's event I'd also like to invite you to discover the lighter side of politics with our new exhibition,

Behind the Lines and Swings and Roundabouts. It's now open in the SLQ gallery on level 2 in the main building. It includes works by leading political cartoonists, Mark Knight, Alan Moore, Cathy Wilcox, John Shakespeare and the 2018 political cartoonist of the year, Matt Golding. It also show cases cartoons from the turn of the century from our collection and I think you won't be surprised to see that the topics and the way cartoonists work hasn't changed much in the last 100 years. Thank you again to the Information Commissioner, Rachael Rangihaeata and the Office of the Information Commissioner for choosing The Edge to hold this year's Solomon lecture and for your ongoing collaboration. I'll now hand back to Madonna to close this morning's proceedings.

## Applause

## Madonna King

Thanks Anna and thanks for making us your date this morning, we hope you've enjoyed this conversation about accountability, human rights and data. Such an important conversation to have as data becomes a bigger and bigger part of our lives. Continue that conversation with #RTID2019, a safe trip back to work. Thank you.

Applause