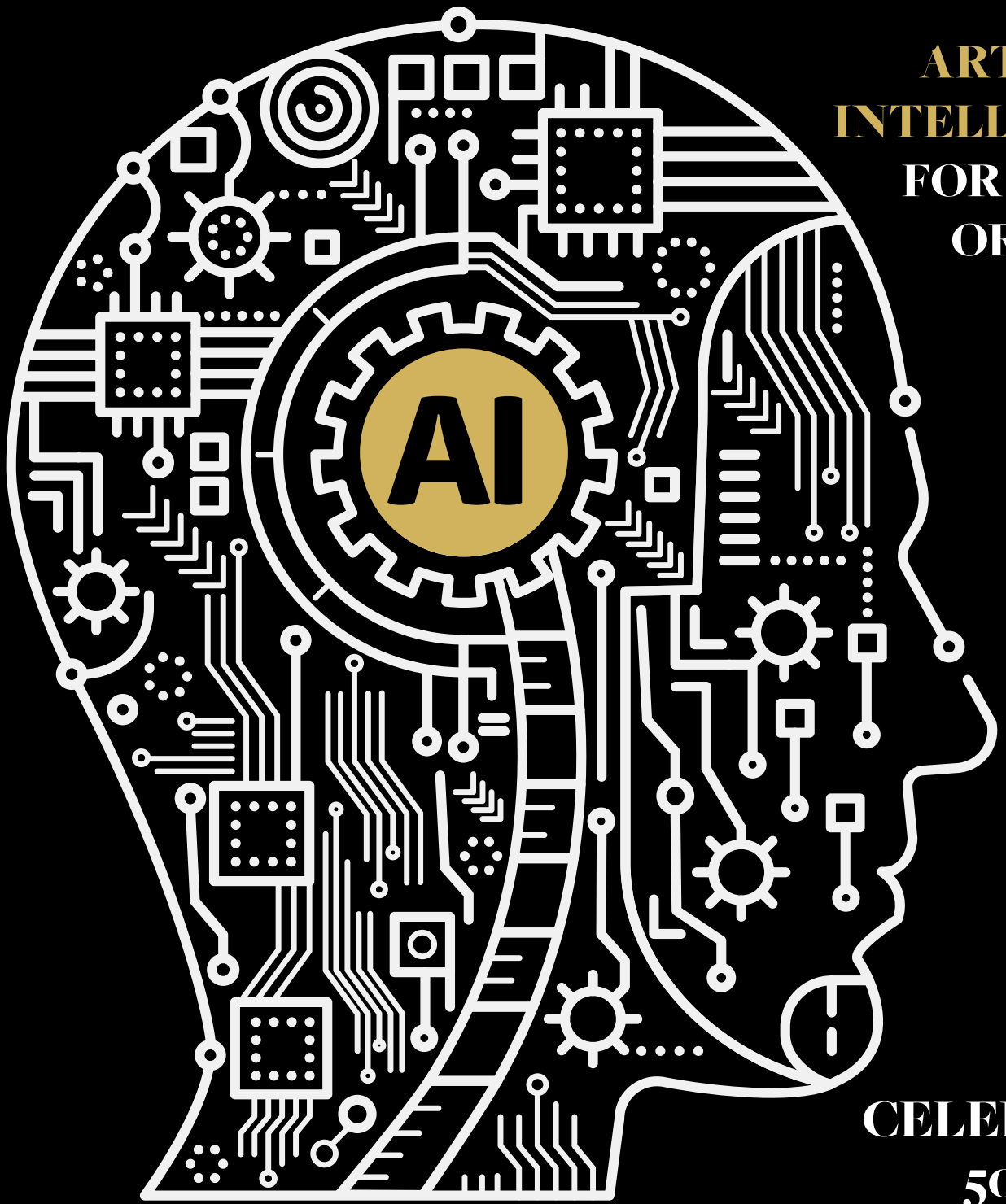
iQ

THE RIMPA QUARTERLY
PROFESSIONALS MAGAZINE

Vol 35 / Issue 1 / February 2019

ADVANCING AND CONNECTING THE RECORDS AND INFORMATION MANAGEMENT PROFESSION



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- MANAGING RESISTANCE TO CHANGE
- RECRUITMENT: QUESTIONS THAT MATTER

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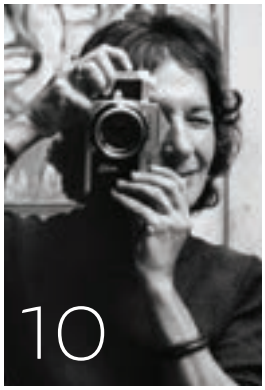


VIEW FROM THE CHAIR

THOMAS KAUFHOLD
MRIM, CHAIR OF THE BOARD, RIMPA

"As a profession, we need to come to grips with AI and take the opportunity to understand how AI is applied to recordkeeping and the use of information."

There's lots of big news to inform you about in this letter.

Firstly, I'd like to welcome Anne Cornish to the role of General Manager. Anne has enjoyed a long and dedicated affiliation with RIMPA and intimately understands the requirements of the Association and our members. Anne has led the delivery of reshaping RIMPA over the last year, and I know that she will have a powerful impact on RIMPA's ongoing success into the future.

RIMPA is looking forward to a very exciting year with the highlight being to celebrate our milestone 50th birthday. We've certainly come a long way since 1969 when three individuals met in a Melbourne hotel and decided that a professional association for records managers would be a damn good idea. A half-century later and there's a lot to reflect on.

Throughout the year we'll take the opportunity to reflect on the history and evolution of RIMPA with special features in iQ. Keep an eye out for these spreads as we journey through key highlights of this great Association, starting with a retrospective on pages six and seven of this issue.

I personally feel that the greatest achievement has been the creation of an identifiable community of professional people working in the management of records and information governance that is recognised worldwide.

This community has held us in good stead over the last 50 years and will continue to do so into the future. I'm proud to say that RIMPA's community includes industry providers, academia, educational institutions, and of course records and information managers.

RIMPA is the heart and backbone that has shaped and cultivated this community. I often wonder if developments such as the Australian Records Management Standards (now International Standards) or accredited tertiary courses in educational institutions would have been established if our Association did not exist.

The news has been out for some time that the Board decided to relocate the annual convention to Melbourne, which is fitting given that this is the location of RIMPA's birthplace.

The annual convention has also been rebranded and is now called RIMPA Live (formerly inForum) and takes place from 8-11 October 2019. Our marketing and events staff are working enthusiastically to provide an exciting new format and content for the convention, which you won't want to miss out on.

Keep an eye out for the RIMPA Live program which is expected to be published in February 2019.

This edition of iQ features a theme about Artificial Intelligence (AI) and examines various aspects of this important subject that will shape our profession and the society we live in for many years to come.

As a profession, we need to come to grips with AI and take the opportunity to understand how AI is applied to recordkeeping and the use of information. Even a mild application of AI can go horribly wrong if not applied correctly and if the information is used in such a way that impacts on people's rights and welfare. We must have strong governance around AI and RIMPA must influence developments in this space.

With that said, it is often claimed that technology of this nature will bring a result in the demise of the records manager. Although, the records manager has not only survived but indeed prospered by adjusting and meeting new advancements and challenges. You might hear this "voice of reason" reflected in some of the articles in this edition.

Finally, I'm pleased to inform you that by popular demand, iQ is returning to a print format. Members will now have access to both a hard copy and digital version of iQ as an add-on to their membership subscription.

Wishing you a productive and prosperous year ahead.

Members Update

2019 is shaping up to be an exciting year for members with the release of RIMPA's new membership system, simply called, Membes. This platform is both contemporary and user-friendly and allows members to access membership details and upload CPD points. Members can also freely navigate the Members Only area to access online resources, download a copy of the *iQ* RIMPA Quarterly, register for branch events and secure a sought-after place at the national convention, RIMPA Live.

Branch events were well-attended in South Australia, Queensland, Victoria, and Western Australia in the last quarter of 2018. It was excellent to have the support and attendance of vendors at these events, who took advantage of various sponsorship options.

Since the introduction of the new corporate pricing structure in 2018, membership numbers continue to rise, and we look forward to welcoming more new members to the RIMPA community in 2019.

Life Members

- Stephanie Ciempka
- Kate McCarthy

Chartered Members

- Gunta Bajars
- John Sim
- Megan Cappelleri
- Simon Rawson
- Janine Morris
- Gavin Parton

Associate Members

- Lynda Leigh
- Nino Borka
- Leila Lakani
- Lisa Ryan
- Adam Bullock

New Corporate Companies

NT

- City of Darwin

QLD

- Tourism and Events Queensland

SA

- Teachers Registration Board

VIC

- Treasury Corporation of Victoria and Buloke Shire Council

Student Members

NSW

- University of Technology (six students)

VIC

- RMIT/Department of Social Services (one student)

WA

- Open Universities (one student)

New Individuals

NZ

- Dr Maja Krtalic

VIC

- RMIT/Department of Social Services

Not already a member?
Join RIMPA today!
(pro-rata rates available).

iQ

NEXT ISSUE:

Digitisation

The May 2019 issue of *iQ* will feature a section on digitisation, plus general features.

If you have a relevant article, we would love to hear from you.

Please submit your story idea to:
editor.iq@rimpa.com.au

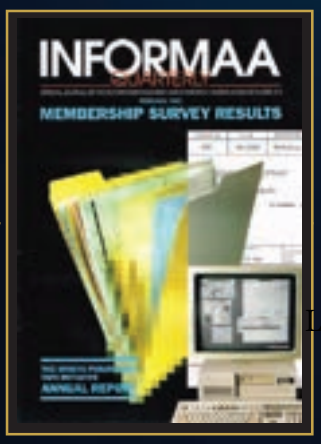
Copy due: Wednesday 13 March

RIMPA IN TIME

We've had you covered since 1984

'84

'90



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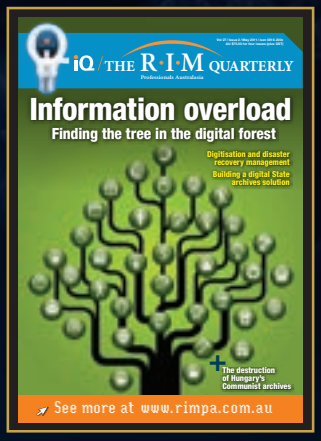

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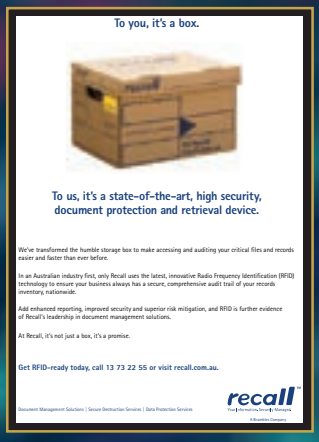
Celebrating 50 years in 2019

Looking back at our vendors...



RIMPA

Artificial Intelligence demands good data management:

NZ Government warns


NZ Parliament House

The New Zealand Government is warning its public service agencies over pitfalls of advancing Artificial Intelligence (AI) usage with algorithms "embedded in policies ... ranging from protecting New Zealand from external risks and threats, to streamlining processes and improving efficiency".

The alert comes in an Algorithm Assessment Report published late last year, identifying two almost counter problems of risk of human bias and the importance of retaining human oversight. It also urges care over protection for individual privacy. It hammers home the point:

"It's now more important than ever to ensure good practice in data collection and management, to build safeguards to identify algorithmic bias, and to protect individual privacy through the safe use of data and analytics."

The report follows an analysis of the use of algorithms across 14 agencies, many of whom interact with New Zealanders every day. It is, the report says, "the first step to increasing the transparency and accountability of algorithm usage across the government data system."

AGENCIES LARGE AND SMALL

The survey covered government ministries from the huge Department of Internal Affairs and Ministry of Justice to Oranga Tamariki (Ministry for Children) and the new Social Investment Agency.

The Assessment identifies what it calls "six principles for the safe and effective use of data and analytics by government agencies ... designed to support transparency and promote a best-practice use of data and analytics for decision-making": clear public benefit; transparency; understanding limitations; human oversight; fitness for purpose; people focus.

It warned: "Human oversight cannot be taken for granted in the future. As technology, particularly Artificial Intelligence and machine learning, becomes more powerful and sophisticated, it will be increasingly important to retain human oversight of significant decisions.

"A majority of participating agencies identified that, in the future, they anticipate using algorithms that employ elements of Artificial Intelligence to inform more sophisticated and complex decision-making. Five agencies indicated they did not expect to develop AI-based algorithms, while one agency was uncertain about future development in this area.

"This suggests that agencies will need to be aware of how they adapt to new technologies and deploy new algorithms in the future to ensure human oversight is retained at appropriate levels."

The report concludes: "Sharing best practice between agencies is an obvious first step in raising the transparency and accountability of government algorithms.

"Almost all the participating agencies agree that additional cross-government guidance on the creation and use of algorithms would be helpful, and that it would be useful to be able to seek external, independent, expertise on algorithm creation, use, and ongoing monitoring and review."

RECIDIVISM TO RESOURCES

The algorithm survey reveals many AI uses Kiwi government agencies employ, for example:

Inland Revenue uses algorithms for automatic refunds and a "good comparator tool" to estimate levels of company tax suppression.

The Department of Corrections scores risks of recidivism for individual offenders

The Department of Internal Affairs runs passport applications through automatic assessments against identified risk factors.

The Ministry of Business, Innovation to Employment assigns a risk level to visa applications based on Immigration New Zealand information.

The Ministry of Health uses its Clinical Prioritisation Access Criteria (CPAC) suite of tools to rank patients' points for elective surgery.

The New Zealand Customs Service uses a "Targeting Profile" to identify "risk and target resources".

The Ministry of Social Services uses a "statistically predictive modelling tool" to identify school leavers at risk of long-term unemployment: "Not in Education, Employment or Training (NEET)".

The New Zealand Police uses "Youth Offending Risk Screening" and "Family Violence Risk Assessment" tools.

NZ Government Algorithm Assessment Report, Department of Internal Affairs and Statistics NZ, Wellington, October 2018, **https://data.govt.nz/assets/Uploads/Algorithm-Assessment-Report-Oct-2018.pdf**

A transformative year ahead for National Archives

BY DAVID FRICKER, DIRECTOR-GENERAL, NATIONAL ARCHIVES OF AUSTRALIA

2019 promises to be a pivotal for the National Archives of Australia (NAA). From a state-of-the-art enterprise digital archive to mass digitisation of the national archival collection, the NAA is undertaking a highly-ambitious program of work leading up to 2020.

For more than 70 years, the NAA has ably secured, preserved and made accessible priceless information for the benefit of current and future generations. Advances in technology mean the archives profession can take the digital lead on ensuring continued access to secure information that is authentic and usable.

The NAA has a pre-eminent international reputation for managing and securing data and information in both physical and digital form. Its aim is to surpass this reputation in 2019.

Fundamental to achieving this will be the introduction of end-to-end digital processes, systems and technology to enable the efficient and secure selection, transfer, control, preservation and ongoing use of records in all formats. This will include a new enterprise digital archive, with the capability to handle the large volume of data soon to be transferred from Australian government agencies.

A modernised IT infrastructure will greatly enhance the NAA's digital archiving capacity. Its international best-practice digital-archiving standards, processes, policy development and systems design underpin the National Archives' aptitude in this area.

Digitisation of the NAA's analogue collection will continue throughout 2019. Significant resources are required to digitise the 190,000 individual audiovisual items on magnetic tape. Across the world, experts agree that magnetic tape which has not been digitised within seven years will effectively be lost forever due to degradation or technological obsolescence. The NAA will continue its race against the clock to save priceless heritage material.

There are now more than 60 million pages of digitised collection material available online. Last year, these pages were viewed more than 22 million times. With the implementation of the NAA's end-to-end digital solution, it is expected that these figures will increase exponentially in the coming years.

National Archives of Australia

UNESCO World Memory marks 125 ears of NZ Women's Suffrage


Photograph 1

One hundred and twenty-five years of women's suffrage was being celebrated in New Zealand when the year's UNESCO Memory of the World Register inscribed four very different female treasure troves dating across Kiwi history covering almost that whole period.

- The 1830s engraved signature of a 16-year-old Māori school girl;
- Records of early 20th Century public health care by the Presbyterian Deaconess Order;
- Life works of celebrated immigrant photographer, Marti Freidlander, CNZM; and
- Oral recollections by ten Cambodian women who fled the terrors of the Pol Pot regime in the 1980s.

The four collections were among eight recognised in UNESCO's 2018 annual awards, bringing to a total of 35 the documentary heritage holdings on the N.Z. register.

The schoolgirl's signature was scratched, probably with an iron nail, deep into a school writing slate: 'Na Rongo Hongi, a 16' ("Belongs to Rongo Hongi, 16'). It was found hidden beneath floorboards at the Kerikeri Mission House, Northland, during restoration work in 2000. It was discovered with another slate, marked similarly with a traditional Māori language song, also inscribed by the UNESCO Register. They came from the 1830s period when an early school for girls was run at the Mission Station in the Kerikeri settlement 250 kilometres north of Auckland.

Schoolgirl Rongo Hongi was the daughter of Hongi Hika, a rangatira (chief) of the powerful northern iwi (tribe), Ngāpuhi. She grew up to become the wife of another Ngāpuhi rangatira, Hōne Heke, whose fellings of an imperial flagstaff nearby in protest over the 1840 founding Treaty of Waitangi sparked elements of the New Zealand Wars.

The UNESCO Register says the slates "illustrate and bring to life the development of te reo from a spoken language to written". It adds: "The eloquence and confidence of the writing reflects the ... increasing empowerment of Māori to record their history and retain it for future generations".

Deaconess' aid for vulnerable

The Presbyterian Church's Deaconess movement from 1901-1975 established an early health service for many of New Zealand's poor in response to the pressures caused by epidemics, the Depression, the two World Wars and the stresses of the inter-war and post-war periods.

Presbyterian Research Centre Director, Jane Thomsen, explained: "The Deaconess Collection shines a light on a group of women who over 75 years served many of New Zealand's poor and vulnerable, yet to this day their stories are largely untold.

"Because the Church was at the centre of everyday life in the early 20th century, this collection is a rich and unique source of information about the rise of social services, gender inequality and the role of women outside the home in the 1900s."

MARTI FRIEDLANDER'S WORK

Marti (Martha) Friedlander (1928-2016) was a London East Ender born to a Kiev, Russia, Jewish migrant family. Her first job, in 1946, was with an ex-pat New Zealand photographer sparking her interest in the country.

The UNESCO citation to the collection, held at the Auckland Art Gallery, calls it "hugely significant to the people of Aotearoa New Zealand". It adds: "She captured the diversity of the country and her photographic work


Photograph 2


Photograph 3

provides vital insight into a period of significant social change from the 1960s onwards. She showed New Zealanders to themselves."

She migrated with her Kiwi dentist husband in 1958 and her photographic work became well known after her collaboration with social historian Michael King, photographing Māori women and their traditional moko chin tattoos. She was appointed a Companion of the New Zealand Order of Merit (CNZM) in 1999 .

CAMBODIAN REFUGEES' MEMORIES

The Cambodian Women Oral History Project is the first project from the Alexander Turnbull Library's oral history holdings to be inscribed on the UNESCO register. The women interviewed were among many accepted into New Zealand between 1980 and 1990 after they fled the Pol Pot regime and the Vietnam War. The interviews were recorded in the Khmer language by Niborom Young, a Cambodian exchange student trapped in NZ when, in 1975, the Khmer Rouge sealed Cambodia to the world.

She formed a close relationship with many of the woman and children she helped settle and in 1993 she recorded the oral history project. She recalls: "My aim was to encourage those women who survived to tell of their journey because no one had heard these stories. Even their children and grandchildren had no idea how their mum or grandma got here." It took another 22 years for her to transcribe and translate the recordings and turn them into a book, I tried not to cry , published in 2015.

I tried not to cry: the journeys of ten Cambodian refugee women, Steele Roberts Aotearoa, Petone, NZ, http://steeleroberts.co.nz/, 2015.

The UNESCO citation recorded: "The Cambodian women oral history project is an original and significant example of the use of oral history to document themes and combinations of themes that are not easily documented in other ways."

The other four inscriptions marked:

- The Journals and Papers of early northern missionary the Rev. Charles Baker (Auckland War Memorial Museum)
- The 1910-1949 papers of Olympic athlete Jack Lovelock: (Alexander Turnbull Library)
- 19th century Armson Collins' Christchurch architectural drawings (University of Canterbury)
- James Herries Beattie Papers (1848-1972) of South Island history (Hocken Collections, University of Otago).


Photograph 4

(1) Migrant London photographer Marti Friedlander's quirky 1973 self-portrait, a mirror reflection (note her Nikon camera logo is back to front) was taken in the Paris studio of an Israeli surrealist painter. It catches the liveliness of her five decades of New Zealand work, the essence of her Auckland Art Gallery archive photos of elderly Māori women with moko (chin tattoo), artists and writers, children, local protests, and the women's movement. They won her national admiration and the Companion of the New Zealand Order of Merit (CNZM).

(2) The 1830 school slate engraving of Māori schoolgirl's signature 'Na Rongo Hongi, a 16'.jpg

(3) One of the Presbyterian Church New Zealand Deaconess Collection photographs showing volunteer health worker Deaconess Sister Annie Henry pulling the tooth of an unidentified Māori man, circa 1930.

(4) Cambodian-Kiwi Niborom Young begins her 1993 interviews of Cambodian women refugees who fled the terrors of Pol Pot and the Khmer Rouge genocides of their home land.

Submitted by Michael Steemson

New ISO Guide for Records Appraisal

Cassie Findlay,
Australian Convenor, and Senior Analyst Information Governance, Gap

The International Standard Organisation has released a new work on records appraisals, Technical Report (TR) 21946, another valuable annex to the first global recordkeeping standard, ISO 15489. The new guide, completed and released last November, can apply to all organisations regardless of size, nature of their business activities, or the complexity of their functions and structure, the ISO announcement declares.

The technical report joins a vast suite of standards and technical guidance developed by Sub-Committee (SC) 11 of the ISO Technical Committee (TC) 46 since it published the original ISO 15489 in 2001, works like the ISO 30300 series on management systems for records, ISO 23081 on records metadata, ISO 16175 Requirements for Electronic Office Environments, ISOP 13008 Digital Records Conversion, and a host of others.

TR 21946 ... the number is simply its place in the Technical Committee's chronological list of guidance publications ... was the result of two years' study by a working group, WG15, following the launch of an up-dated version of ISO 15489 in Wellington, NZ, in 2016.

The group's Australian convenor, Cassie Findlay, a Senior Analyst, Information Governance, for California-based clothing retail company, Gap Inc, posted on LinkedIn: "Proud as Convenor of the responsible ISO working group that the new Technical Report on Appraisal for managing records has been published. TR 21946:2018 is a valuable companion to ISO 15489:2016 and outlines a strategic, proactive approach to recordkeeping for the digital age." She congratulated the group Team Leader, Netherlands National Archives Recordkeeping Advisor, Wout van der Reijden, for his and the group's work.

"How to do appraisals."

The ISO media release explains: "This document provides guidance on how to carry out appraisal for managing records. It describes some of the products and outcomes that can be delivered using the results of appraisal. As such, (it) describes a practical application of the concept of appraisal outlined in ISO 15489-1."

The release lists many of the report's purposes such as the importance of establishing scope for appraisal; the relationships between records requirements, business functions and work processes; use of risk assessment for making decisions related to records; options for documenting the results of appraisal; and the importance of monitoring and review of the execution of appraisal decisions, among others.

A independent posting declared: "The TR was developed to provide further guidance on the approach to appraisal described in ISO 15489:2016. It describes what is involved in appraisal work, including the analysis and documentation of business, its context, requirements and risks, and why this work is an essential part of implementing recordkeeping in any context, over time.

"The Editorial Committee bore in mind the same set of assumptions that were part of the development of ISO 15489 itsself, including the need to design and manage recordkeeping and its changes in an holistic and proactive way.

"Only with this type of strategic approach can we deal effectively with large and complex systems, massive volumes of data, decentralisation, fluid organisational boundaries and changing expectations about rights in records."

ISO/TR 21946:2018, https://www.iso.org/standard/72274.html

AUSTRALIA ADOPTS ISO STANDARD ON RISK MANAGEMENT

The increasing pace of societal change and technology development in the 21st century is impacting organisations of every size across every industry, presenting new and changing areas of risk. Organisations have been given an updated tool to help them identify and respond to rapidly changing risk landscape.

Drawing on world leading practices to advise organisations on how to manage risk, AS ISO 31000:2018, Risk Management - Guidelines has been published as an Australian adoption of the international standard.

"As the business environment changes with the introduction of new technology and streamlined processes, new areas of risk are identified day by day, and impact organisations of every shape and size," said CEO of Standards Australia, Dr Bronwyn Evans. "One example of a new risk is cyber security and data protection, which was relatively unheard of five to ten years ago but now presents as a unique risk with many organisations unsure of how to respond to this effectively."

The new AS ISO 31000:2018, Risk Management – Guidelines has placed a higher emphasis on the involvement of senior management, as well as recommending risk management be part of an organisation's structure and processes. The guidance in the standard is specifically designed to be common across every industry and sector, providing a baseline approach to risk-management.

"On an international level, more and more industries and organisations are adopting a risk-based approach to doing business," said Mr Jason Brown, Chair of the International Technical Committee responsible for the standard.

"What this will mean is that AS ISO 31000:2018, Risk Management – Guidelines will continue to develop its application, nationally and internationally, in support of governance, value protection and good decision making, be called in more standards, and used in management systems by organisations, to manage risk at all levels."

ISO/TR 21946:2018, https://www.iso.org/standard/72274.html

NSW Auditor-General reports poor recordkeeping in lease of NSW Electricity Network

The NSW Auditor-General in a report to the NSW Parliament has critised the poor recordkeeping surrounding the lease of significant parts of the NSW electricity network Ausgrid.

This audit examined whether the unsolicited proposal process for the partial long-term lease of Ausgrid was effectively conducted and in compliance with the government's 2014 Unsolicited Proposals: Guide for Submission and Assessment (Unsolicited Proposals Guide or the Guide). The Auditor-General reported:

"The evidence available does not conclusively demonstrate the unsolicited proposal was unique, and there were some shortcomings in the negotiation process, documentation and segregation of duties."

The report identified failures to keep an auditable trail of documentation relating to the negotiation process.

The Auditor-General was especially critical of both the prime departments involved in the process and their failure to keep proper and adequate records. The Auditor-General noted that the State Records Act 1998 requires important records of such matters to be kept properly. This is reinforced by the 2006 NSW ICAC Guidelines which note that:

"... keeping an auditable trail of documentation relating to the project and negotiation process enhances an agency's position against criticism concerning problems that may arise during a project."

The 2018 ICAC Guidelines on direct negotiations highlight the importance of keeping records on 'progress of the negotiation process and the reasoning behind key decisions made.

The probity plan for the electricity networks transaction identified the importance of keeping records sufficient to facilitate an independent audit review subsequent to the transaction. This included records of negotiations and other interactions with bidders.

Department of Premier and Cabinet (DPC) and NSW Treasury did not provide the audit with comprehensive records of some key steps. NSW Treasury advise that they could not locate minutes of the meetings with the proponent on 14 September 2016 and 22 September 2016.

No records were provided to show the Treasury Secretary had prior authorisation to disclose a specific price at the meeting on 14 September 2016, or the state's endorsement of that price. The price was consistent with benchmarks established by the state, but no bargaining strategy or other records were provided to show why this specific price was settled upon as appropriate to suggest at this meeting and for the state to accept the next day.

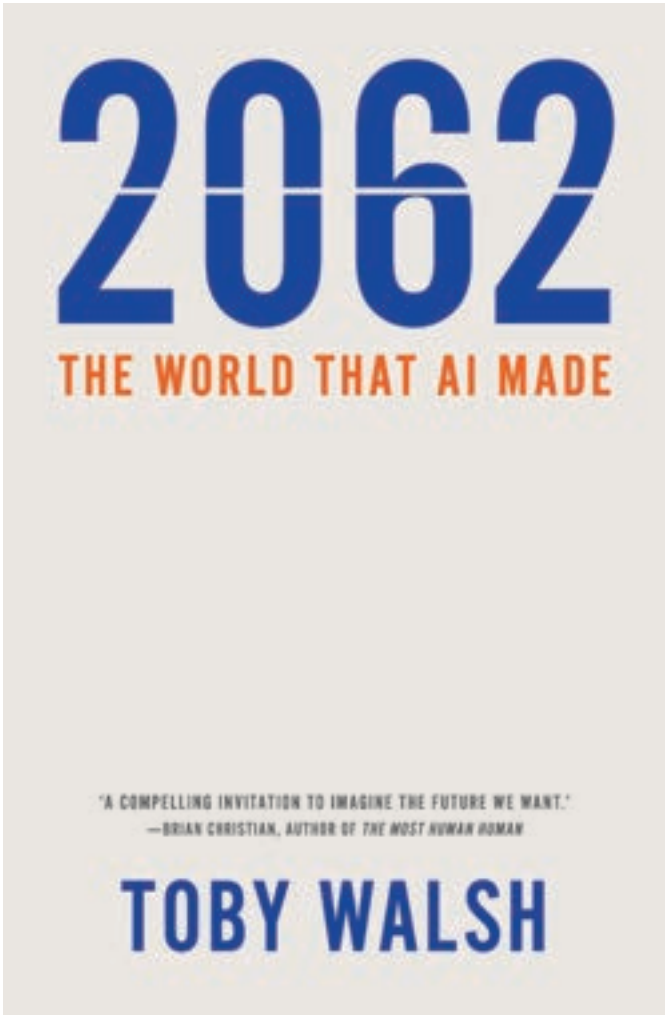
DPC provided to audit Steering Committee agenda and Assessment Panel reports to the Steering Committee, and formal communication with the proponent. Minutes of the Assessment Panel and Steering Committee were kept and these appropriately recorded decisions about the proposal.

Athough, these did not record in detail the analysis or discussions around negotiations and acceptable price so are not a substitute for other documents audit expected to see.

The absence of key records means DPC and NSW Treasury could not demonstrate engagement and negotiation processes were authorised and rigorous.

https://www.audit.nsw.gov.au/publications/latest-reports/unsolicited-proposal-process-for-the-lease-of-ausgrid

Submitted by Philip Taylor



2062: THE WORLD THAT AI MADE. BY TOBY WALSH

Toby Walsh FAA, is an eminent professor of Artificial Intelligence (AI) at the University of NSW, and has held strategic positions both at national and international research centres, and has worked across the globe to promote AI. Professor Walsh passionately believes that AI will only improve our lives for the better.

REVIEW BY SUPARNA CHATTERJEE MRIM

ABOUT THE REVIEWER

SUPARNA CHATTERJEE MRIM has completed a Bachelor of Arts with Honours and a Post Graduate Diploma in English Literature. She has worked in State Government, in Records Management for 20 years in many strategic roles and is currently working in IT projects and Assessment.

In the book 2062: The World That AI Made, Walsh traces the journey of AI, as a captivating progression where a world of thinking machines unfolds to become a reality. The book is set in a future digital world where some of our core human values such as privacy, democracy and diversity are challenged.

Walsh predicts that in the year 2062, machines will evolve to be more intelligent than humans and will do more than they get told. Coined as Homo Digitalis, Walsh suggests that machines are projected to learn and exceed human potential and ultimately run this planet.

2062 is the year that Walsh predicts will see smart machines and algorithms impact every component of our lives — from work to potential future wars, politics and economics — to everyday life and death.

The book takes us on a journey of AI — from IBM's Deep Blue computer that famously defeated the then-world champion Gary Kasparov — to a more recent landmark victory with DeepMind's AlphaGo program which defeated one of the world's best 'Go players' (an ancient and complex Chinese board game).

Walsh asks the critical question: What lies in store for Homosapiens, as we progress with time and technology?

To avoid a repeat of what the world witnessed in Hiroshima and Nagasaki, the author asks for cooperation to outwit Darwin's laws of evolution and adopt an ideology of human kindness rather than an attitude of "survival of the fittest".

Walsh's research is extensive, and his citations capture our experience. He puts a formidable yet challenging argument that it will be difficult to tell the difference between computers and humans. To make his point, Walsh cites examples of CAPTCHA tests to prove that an individual is indeed a human and not a robot.

Walsh also identifies challenges facing us in the year 2062 and poses thoughts on how we might survive these circumstances: job losses, eroding human values, the end of equality, privacy issues, war, the end of politics and the fall of the West with the rise of China.

"Walsh asks the critical question: What lies in store for Homosapiens, as we progress with time and technology?"

In outlining the growing success of AI, Professor Walsh has mounted an argument on everyday reality, not prophecy. He summarises the unending lure of using smarts of machine learning to manipulate the potential outcome in market economics, war or an election. Increased violence and intolerance around the globe could stack up to instances of losing critical human values such as kindness, as we cope in a robust and competitive environment. His reflections capture real possibilities and are validated through a good choice of contextual examples. This allows the reader to be convinced, and not exploring some virtual fantasy world.

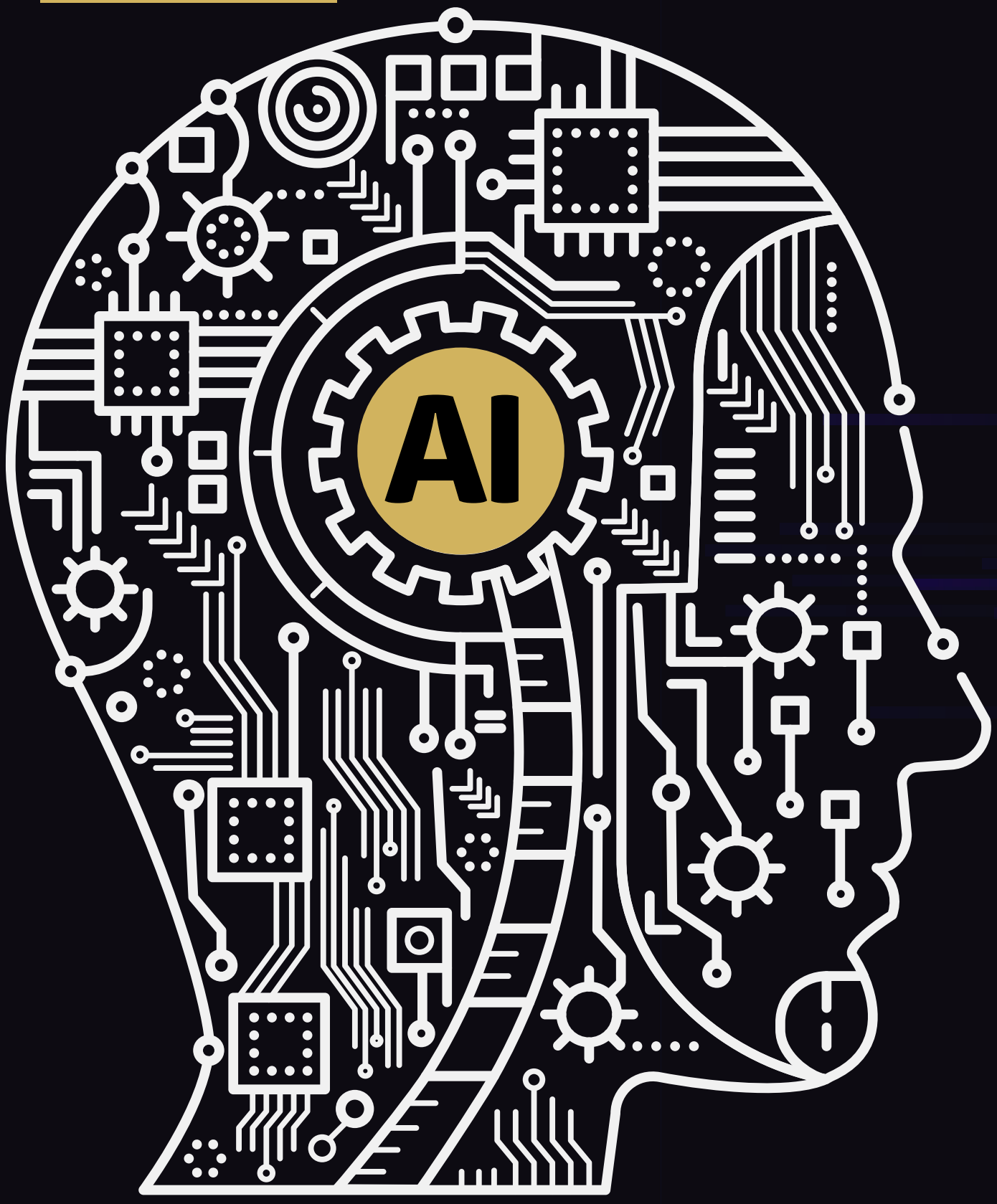
While Walsh celebrates new technology, he is equally passionate about placing limits on AI to ensure the public good. Even though there is a series of predictions based on the way AI is evolving, the author strongly places the onus on us - technology-users - and how technology is used in the future. The suggestion is that the choices we make today can lead to building a better tomorrow.

2062: The World That AI Made is an easy read. I strongly encourage all data consumers and users to read it and to consider the adaptations Professor Walsh has suggested to survive and build a quality future for us all. This book is also 'must read' for records and information management students.

2062: The World that AI Made can be purchased in all good bookstores in Australia and the UK or at https://www.blackincbooks.com.au/books/2062

Artificial Intelligence

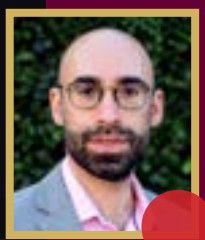
Feature Section



AI tools and Information Management:

Where they can help... automatically

ABOUT THE AUTHOR



DANIIL IVSHIN holds an MBA with a focus in Strategy and has over 15 years' experience in helping companies figure out what to do with their data. From designing KPIs and scorecards to making sure data flows to where it can do the most good, he's been involved with many industries and types of business, wherever data lives. Most recently, Daniil has been working with Callaghan Innovation to help NZ companies make the best use of advanced data science techniques to improve their business and products. Daniil can be contacted on: daniil.ivshin@gmail.com

In 1770 a Hungarian inventor designed a machine — a robot dressed in Turkish robes — that played chess. After beating several opponents, a chess expert hidden inside was revealed and the term Mechanical Turk was born... People have been working on making machines act like people for hundreds of years.

BY DANIIL IVSHIN

These days we are much closer to actually achieving that goal. With Artificial Intelligence (AI) applications appearing in anything from our toasters to self-driving cars. Much of this has to do with the availability of computer technology that allows Artificial Intelligences to be trained. The technology that allows this is Machine Learning (ML).

TYPES OF MACHINE LEARNING

As implied in the term, Machine Learning is all about how we can get machines to learn without being explicitly programmed. That is, how can we get machines to adjust their decision-making algorithms to reach more accurate predictions. There are generally three approaches to this: supervised learning, unsupervised learning, and reinforcement learning.

The thing all these techniques have in common is they still require human input. Any form of Machine Learning still requires a person to identify and clarify a problem, choose an approach, design the requirements for inputs and outputs, collect and clean the data, and evaluate the quality of the result.

According to Gartner's Hype Cycle for Emerging Technologies, Machine Learning has reached the peak of inflated expectations and is two to five years from mainstream adoption. This means there is a lot being said out there about AI and ML and although the technology is improving quickly, some of the benefits may be overpromised. As with many new technologies, much depends on matching tools with appropriate use cases.

> “Artificial Intelligences will act as tools to assist with specific tasks rather than take over the entire workload of an employee”

AI APPLIED TO RECORDS MANAGEMENT

With that in mind, there are definitely places where AI and ML could be applied in the records management space.

At its most basic level, ML could be used to improve existing technology, such as making search more accurate or classifying content. ML is also being applied in areas where prediction of behaviour can help users. For example, auto-suggestions for filing areas that have traditionally relied on most common choices are starting to use ML to discover deeper patterns that can improve accuracy of suggestions. In addition, the user's reaction to the suggestion can be fed back into the system to continue improving the tool at each interaction.

These tools are likely to first be seen as additional product features from major technology providers like Google, Amazon (AWS), or Microsoft (Azure).

However, organisations do not necessarily need to wait for large technology providers to add these features to the product they are using. Because ML techniques can be applied to many different areas, Google, Amazon and Microsoft have tools available for anyone to design ML based applications. Working with these tools requires some understanding of coding and ML techniques, but doesn't

require an advanced degree in maths or computer science. These tools can perform classification of images, prediction of patterns, or even Natural Language Processing.

Also, because AI and ML is such a strong focus of product development, these tools continue to improve in functionality.

TASKS NOT JOBS

There is a lot of discussion about how AI and ML technology will affect workers and whether a large number of jobs will become redundant. As with any new technology, there will be an impact on the working environment, and AI may have a more significant impact than anything since the industrial revolution. But not all types of work will be affected equally and at the same time.

Although, development of a machine that can replicate the adaptability of a person is a target of research, the current capabilities of AI are much more limited and focused. It is more likely that Artificial Intelligences will act as tools to assist with specific tasks rather than take over the entire workload of an employee.

In 2016, McKinsey did a study on the feasibility of automation replacing work activities across various occupations. They found that the top three types of tasks most susceptible to automation were Predictable Physical Work (78%), Data Processing (69%) , and Data Collection (64%). The least likely tasks were Managing Others (9%) and Applying Expertise (18%). Within Information Management there of course are tasks that could be automated or eliminated with the application of ML or AI, but these are not the core functions of professionals and the additional time and flexibility gained would be redirected towards activities that are uniquely suited to people.

WHERE AI CAN HELP

If we take a more detailed look at where AI and ML technology can benefit Information Management, there are several types of problems that could be good targets for new techniques.

Document Classification: Using supervised learning, a pool of pre-classified documents could be provided for the system to analyse common characteristics such as phrasing or formatting. This will allow it to develop a "fingerprint" for a certain type of document class and make suggestions based on that analysis.

Language and Semantic Analysis: Adopting pre-trained models and sample documents, the system would use linguistic and semantic analysis to recommend key words or record series that should be recorded against content.

Compliance: When documents are collected for an audit, it can be a very stressful and frantic experience that can lead to errors. AI could be very helpful in this area by being trained to find patterns in a document that would identify it as relevant for compliance purposes and quickly retrieve it from a repository.

Data Quality: Documents and data created by people tend to accumulate errors of various kinds that can make it harder to find or properly deal with records. AI can spot patterns where there is misplaced information, typos, or formatting errors that could make normal methods of classification difficult. These tools could also be used to automatically correct errors — such as phone numbers or postal codes entered into the wrong fields — when they are found.

These are just specific examples of potential areas where ML tools could be applied. It will be up to Information Management professionals to evaluate opportunities at their organisations and devise business cases about where they think the benefits would be for them.

> People will need to focus their professional development on gaining skills that help them work with AIs

SKILLS FOR HUMANS

People are an important part of the puzzle of applying AI and MI to any area. These technologies will become more prevalent and tend to replace repetitive technical work. As a result, people will need to focus their professional development on gaining skills that help them work with AIs. This may mean looking at courses that focus on programming and data analysis on the technical side, and areas like problem-solving, design thinking, and business analysis on the more conceptual side.

Because technology is changing and being adopted so quickly, there may not be the opportunity to take a year or more away to pursue a full degree program to gain these skills. Luckily, there have also been great developments in the availability of courses online for these and many other topics. These range from low priced focused programs from providers like Udemy Inc. to micro degree programs at Udacity Inc. taught by professors from Stanford or Harvard universities. The benefit of these types of small programs is that they are updated frequently to keep up with developments, and are very responsive to feedback from students. This allows course facilitators to improve content and experience much quicker than a traditional educational institution.

WHERE TO NEXT?

All these new developments in Artificial Intelligence and Machine Learning are creating a lot of excitement around the possibilities that new technology can bring to many industries. Information Management is particularly well placed to benefit because of its unique position as an environment where complex information and humans interact. Professionals in the industry who keep an eye out for those opportunities will be best placed to bring benefits to their organisations.

Gartner's Hype Cycle for Emerging Technologies: https://www.gartner.com/smarterwithgartner/5-trends-emerge-in-gartner-hype-cycle-for-emerging-technologies-2018/ https://www.mckinsey.com/business-functions/digital-mckinsey/our-insights/where-machines-could-replace-humans-and-where-they-cant-yet Udemy Inc., California on-line learning platform. https://www.udemy.com/ Udacity Inc., Californian educational organisation, https://www.udacity.com/

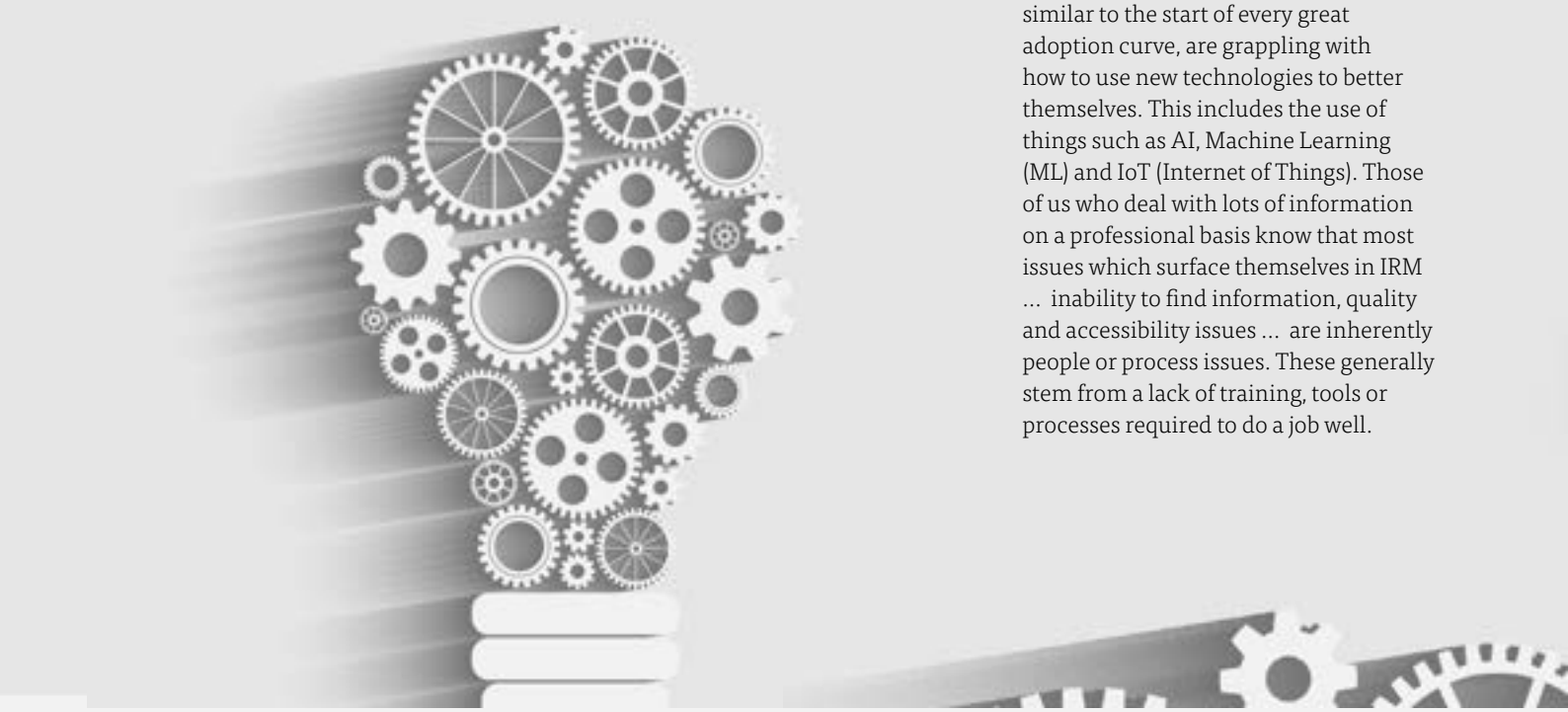
> "If we're going to solve the real problems we're facing now, we have to demystify AI"

What's all this about AI?

It's just maths... and good data

As organisations contend with using new technologies to improve themselves, eternal pragmatic, Mike Bellomo, risks being the subject of a bot joke in his ongoing pursuit to solve business problems using Artificial Intelligence. Just be sure to not mention "autonomous vehicles" if you're speaking to him...

"CHIEF PRAGMATIST" MIKE BELLOMO



I have, for some years, been experimenting with various forms of Artificial Intelligence (AI) to solve business problems. Most of the time this just involves Googling examples and modifying them to suit. It's not glamorous, seldom works as expected, and sometimes is an utter failure.

During one experiment, I was trying to get a handle on some software that would simulate a conversation with users – a chat bot. I figured if I could learn to train AI well, I could apply it almost anywhere. I downloaded all 10 years of my social media chat history and built, so I thought, a model to respond to text input as if it were me.

Mostly, the bot just spouted nonsense. I once asked it to tell me a joke. It promptly responded: "you". It turns out, it didn't learn to speak like me but it did learn my dry sense of humour.

Most modern organisations today, similar to the start of every great adoption curve, are grappling with how to use new technologies to better themselves. This includes the use of things such as AI, Machine Learning (ML) and IoT (Internet of Things). Those of us who deal with lots of information on a professional basis know that most issues which surface themselves in IRM ... inability to find information, quality and accessibility issues ... are inherently people or process issues. These generally stem from a lack of training, tools or processes required to do a job well.

"You know to run when marketing blurbs contain terms like 'IoT', 'Digital Transformation', 'Big Data', and especially if they somehow mention "autonomous vehicles"

An example of this could be a manual process involving matching invoices to purchase orders for payment. This happens pretty often in most places given it's a critical process for getting any work paid. Often, it's laborious, time-consuming and done by hand. Advances in ML have enabled products which can, supposedly, do this without human intervention.

KNOW WHEN TO RUN

These products will take scanned records, extract information from them based on trained models, and store the information for later use. Usually, they're sold as a silver bullet to document management and accounting process issues using fancy buzz-word heavy advertising material. (You know to run when marketing blurbs contain terms like 'IoT', 'Digital Transformation', 'Big Data', and especially if they somehow mention "autonomous vehicles".

The trouble is, it's impossible to achieve even 80-90% accuracy given the variability of information formats inherent in document-heavy processes. Unfortunately, AI isn't going to solve this issue completely any time soon. It can really only be used to supplement human ability.

If we're going to solve the real problems we're facing now, we have to demystify AI. It's a bit like in Harry Potter where characters refuse to say Lord Voldemort's name because they are afraid to speak it. It gives him the advantage of fear, effectively placing him on a pedestal. We've done the same with AI. We've made it magical, a solution to all of our problems so none of us has to work anymore. The reality is quite different, and we need to make an effort to understand that.

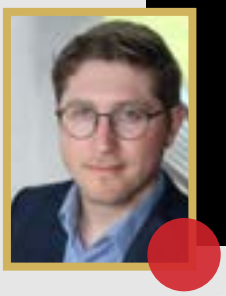
AI is only maths. It doesn't sound as sexy when you think of it like that, but it helps the layman (like me) apply AI in the job more successfully. If I recognise that the output I get will only be as good as my application of it, I'm more likely to find the right scenario for its use. The adage 'garbage in, garbage out' is still very relevant here. If the organisation does not have policies to ensure only good quality data is captured and maintained, then using maths to learn and complete tasks from that data will be very difficult, much like it would be for a human.

If I understand that every invoice needing to be processed follows no document standard, it will be very difficult to use maths to recognise and capture fields beyond what a human could do. Even though AI and ML are shiny new tools which hold great future promise, they are just smart sounding mathematics that takes an input and returns an output. They are only as good as the understanding of the person who "trained" and implemented them.

It's not that we shouldn't look to the future with excitement at the new developments happening with technology. It isn't even that AI won't solve a lot of issues. However, to apply it correctly, we need to have a general understanding that it isn't magic. It requires the user, to have underlying knowledge regarding fundamental aspects of information management. It requires the user to take a pragmatic approach with a basic understanding to get the best value possible.

Perhaps that's how I earned my title.

ABOUT THE AUTHOR



MICHAEL BELLOMO is an ex-pat American living in New Zealand since 2005. He has had a mixed bag of experiences in his life, ranging from living in Japan to commercial pilot training and a career in IT and data analytics. He has worked both in public and private sectors and likes to refer to his time in the public sector as "an exercise in patience".

He is Chief Pragmatist for Analysis Paralysis, a New Zealand-based company passionate about using data analytics, machine learning, AI and good humour to solve problems both big and small.

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Using Intelligence with Artificial Intelligence

As Records Management and Information Governance programs forward, there is an increasing desire and likelihood that companies will use some form of Artificial Intelligence (AI) to review, assess, categorise, and ultimately select retention for company records. How AI is implemented and used, can have broader implications in the success of the overall Information Governance program.

BY CRAIG GRIMESTAD

Specifically, I am speaking to the need for workers to have and maintain a sense of ownership in the management of the records they create and process, including the categorisation of "record type" or assignment of "record class" and the maintenance and retention of those records. Strange as it may sound, it is not unusual for workers to want credit for the intellectual content of their documents, or document processing (whether a unique creation or part of a regular business process flow), but not be responsible for the preservation, management, and retention requirements of those documents. Use of AI has the potential to further isolate individuals from the records they create, process, and manage.

Companies have good intentions and can do well by using AI to improve productivity and free up employees time and effort in automating the classification and retention of documents. Today, in the numerous available programs and applications for developing and managing records, there are many choices regarding how to set-up this automation.

There can be "full automation" by a third party without the participation of individuals (scanning all emails and attachments with "auto classification"). This takes the burden off of the workforce, and keeps them from wasting their time in the drudgery of categorising and managing their records. That company, and those workers in it need to be enlightened with an improved understanding of the corporate and personal value of records (see: Energise Compliance by Changing the Attitude - November 2015 edition of *iQ*).

Much better is the semi-automation or "smart automation" where "subject matter experts (SMEs)" and end users participate in the identification and classification of records. This brings intelligence to the "AI" processing, becoming a tool useful to the company and end users, rather than another "bureaucracy" to deal with in the management of the company's and an individual's records.

Consider "maintenance" records: Companies who manufacture, will own buildings and have requirements for building equipment maintenance, as well as machinery (producing product) maintenance. Will AI identify and distinguish (in emails and other documents) the difference between building heating and air conditioning equipment and manufacturing equipment? Will it also distinguish between "routine" maintenance and "repair" maintenance? Cutting the grass and washing windows is also part of facility maintenance. Will AI (without strong participation from subject matter experts and end users) distinguish that? Companies probably don't want to keep records of grass cutting and window washings for the life of their facilities. Clearly "maintenance" is not a sufficient records categorisation for emails or records.

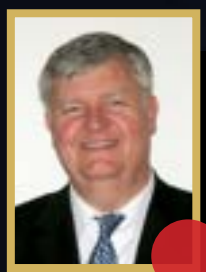
"The use and application of Artificial Intelligence must be implemented as a tool for use by the workforce, not as a replacement for workforce participation in the management of records"

The use of AI can be an effective tool for improving worker-efficiency and accuracy in maintaining records. AI applications must be combined with human intelligence in setting up the system for evaluating and discerning the correct identity and retention assignment for records. Keeping individuals responsible for their records (as AI is utilised), helps to maintain the correct responsible mindset for the workforce within the total Information Governance program.

Keeping SMEs and end users responsible for overseeing the results of AI utilisation, provides fast support and correction of the AI applications when issues and problems arise.

Further, to maintain the most efficient use of Artificial Intelligence, the AI triggers and determinations must be periodically reviewed and updated as AI capabilities are improved, and changes occur in the company's business processes and also retention needs.

The use and application of Artificial Intelligence must be implemented as a tool for use by the workforce, not as a replacement for workforce participation in the management of records.



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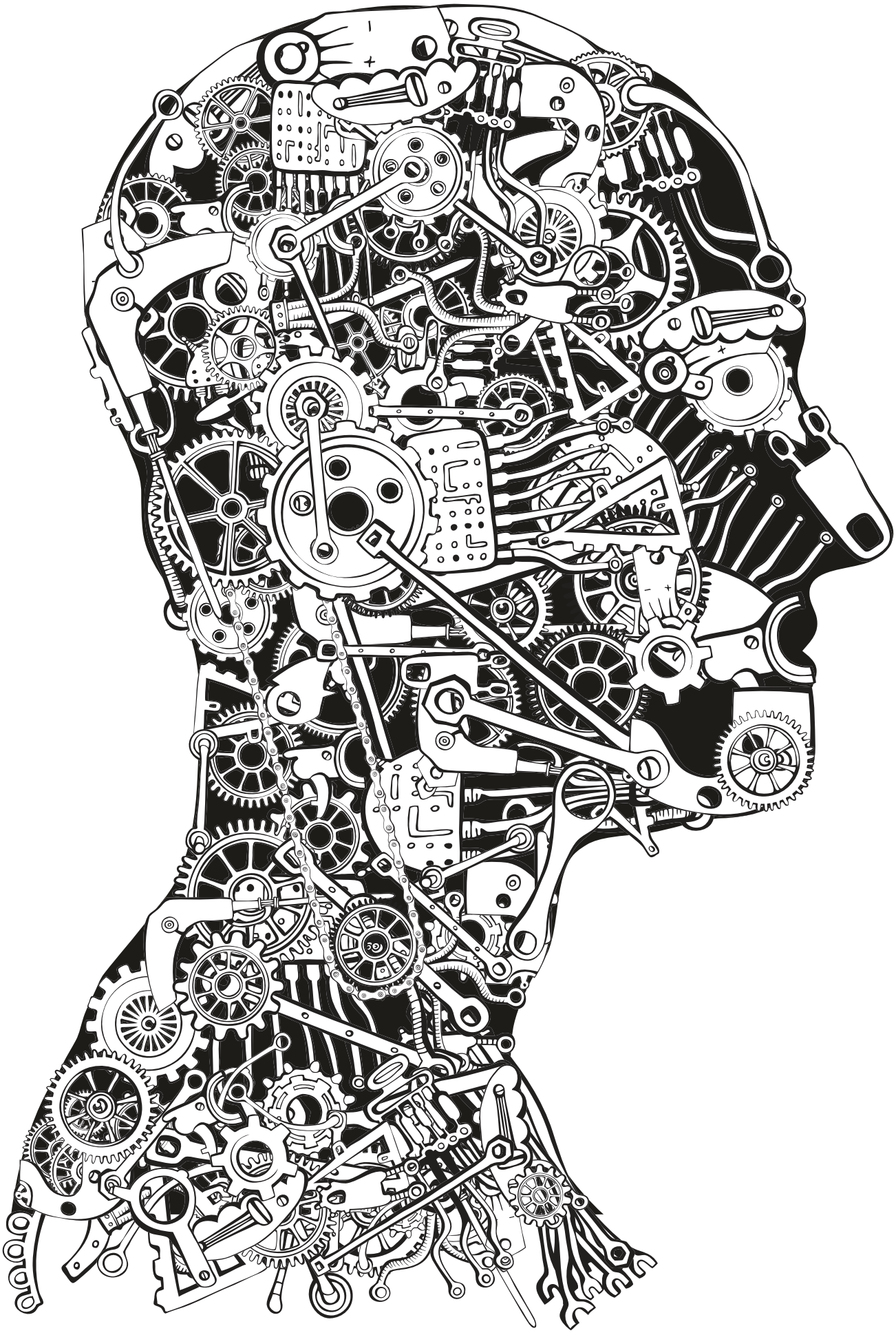
CRAIG GRIMESTAD is a senior consultant with Iron Mountain Consulting. His specialty is designing RIM core components with a sub-specialty for RIM auditing. Craig holds a Masters of Science degree in Engineering and was the records manager for the Electro-Motive Division of General Motors where he participated in the development of the GM Corporate RIM program, and implemented and managed Electro-Motive Division's RIM program.

He blogs to: infogoto.com/author/cgrimestad



AI equipping us to succeed

Smart machines, robots and the emerging technology around it, has forced society to respond and adapt to technology disruption. While we love the life of prosperity that new technology has gifted us, we worry that Machine Learning (ML) and robotics are maturing fast and furiously to make many skilled roles obsolete, causing 'huge social dislocation'.

SUPARNA CHATTERJEE MRIM

It is true that customer experience and business processes work far more efficiently relying on advanced algorithms and automation. However, rather than a looming doomsday to confront drones taking over planet Earth — a concept that has remained confined to the silver screen of Hollywood — the reality is that Artificial Intelligence (AI) and automation has positively impacted the workplace. While ML has taken over repetitive manual work, humans have been able to eliminate their frustrations of repetition, re-focusing on higher value tasks that are more stimulating.

> **"Computers will overtake humans with AI within the next 100 years. When that happens, we need to make sure the computers have goals aligned with ours." Stephen Hawking**

However, with diversification happening to our communication channels in the use of portable storage tools such as e-mail, messenger or personal file transfer programs (copying convenience), the potential of unauthorised information access has increased. Appropriate monitoring and overall oversight is required to ensure similar access can be avoided.

Vulnerabilities exist not only with personnel but also in our technical and operating environment. It is essential in such terrain to establish fundamental solution strategies for resolving vulnerabilities. Departments need to invest in building tracking and accountability measures to mitigate risks around information leakage. Often the possibility of information leakage is lowered through the encryption of portable storage devices, or other technical control measures applied to control systems through identification and access control.

A much-used comment is that we are increasingly data rich, yet, information poor as we become genuinely overwhelmed by the expanse of digital data. The amount of digitised data and digitisation has increased exponentially in the last few years. IBM, for example, suggested that by 2015 the world was creating 2.5 quintillion bytes of data every day. Cisco similarly advised that we have entered the Zettabyte era, with annual global IP traffic forecast to rise from one Zettabyte in 2016 to 2.3 Zettabytes in 2020. But data on its own has little value unless collated, extracted and analysed for its meaning and importance and stored with a rich context for future use. We do not have the time to analyse every piece of business information let alone find them all when required and could be left wondering if we are following the process.

Emerging regulatory requirements around the way we handle data is making us more accountable. Although departments need more data than ever before to provide increasingly personalised services to customers and to gain valuable business insights, meaning that regulation is mandatory. To comply, excess data gets removed, or access becomes limited or closely monitored and its use is documented. Therein lies the dilemma: what stays and what is binned is a powerful decision.

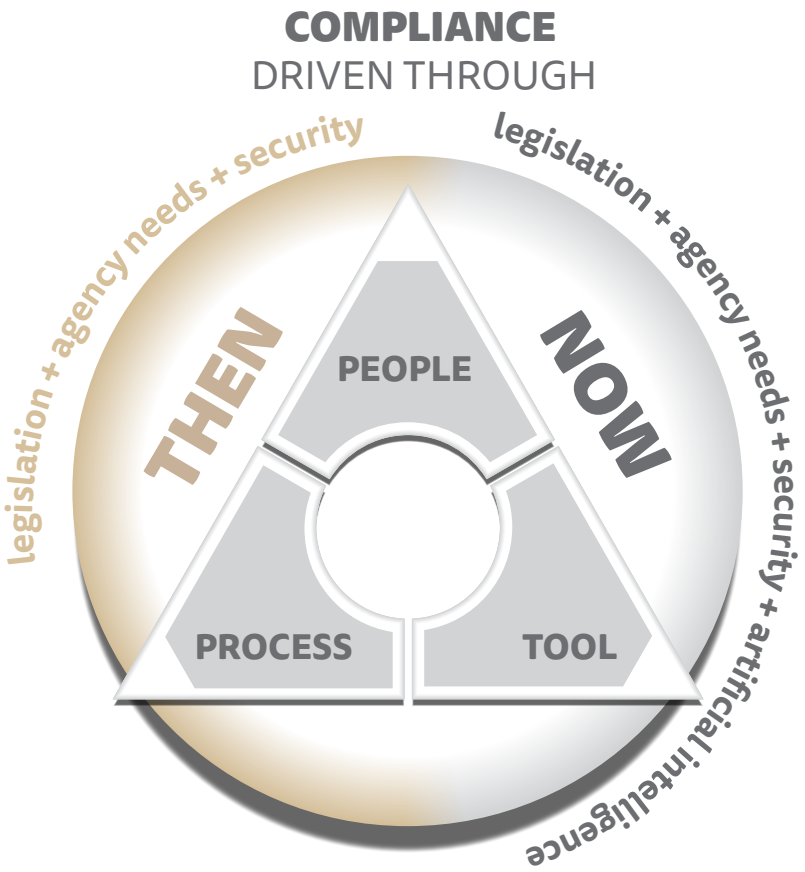
The underlying conceptual framework here is working on an onion model, where the outer layer indicates the regulatory needs driven through state and commonwealth, national and international mandating authorities, representing demands for compliance. The triad of people, processes, and tools remain at the core as are the key players of information flow.

To accomplish the goal of compliance according to regulation, which deals with the good practices of information management, we have relied on employees to do the right thing. However, at present as we handle larger volumes of information, perform manual data entry on tight budgets, attempt to simplify electronic records management in the organisation, we have pushed back the capture of records to operating business.

It is true that business units are better placed to fully understand the nature and value of the information they create and collect. Ultimately, they are in the best position to describe what each piece of information is and know its value.

Both AI and Natural Language Processing (NLP) can be applied to analyse and categorise large pools of historical records. However natural human intelligence is the best method for understanding the significance of a transaction when it occurs. A department might capture and protect information effectively to serve the community, but they also may be concerned about how to comply with digitisation and records standards.

Unfortunately, the function of registering records is often seen as "not my job" and passed around. Irrelevant of its format, whether paper or electronic, the work involved in capturing records as document preparation, filing, registration, indexing, determine its retention period and is thought of as neither fun or exciting. Unfortunate consequences can result as people name documents with little care and dump them in the wrong place. It is strongly believed that records capture should be invisible, seamless and should just happen!



With computing power growing every day, AI has taken on a new meaning and plays a significant role in helping with: intelligent tagging (linking people, places, facts and events across a large volume of documents at increasingly high speed), de-duplicating information, trawling through large content, identifying matter related to a specific entity or theme, and processing vast amounts of date. Stepping away from Science Fiction, AI has ensured intelligent capture through automated processes, accelerating document delivery time, minimal manual handling, adequate capture of critical information and thus ensures good recordkeeping practice is maintained.

Compliance measures evolve through the realm of AI and its many benefits have made it much more cost-effective and easily accessible across all sectors. Today, major biometric technologies include finger scanning, facial recognition, iris and retinal scanning, finger geometry, voice recognition and dynamic signature verification, all indicating that tighter security measures are being implemented. AI-driven compliance is effectively used in transactional areas to ensure checking for any indication of fraud, and comparing different sets of data to check for 'red flags'.

Overall, data quality has been enhanced through automation and weeding out spelling mistakes and other human slip-ups. In addition, automated rules perform repetitive actions with minimal error rate.

AI-based automated filing makes for significant cost saving. Every day we find better uses of AI, including voice recognition, credit card validation, e-commerce, and contact centres that identify the next best 'call to action' for the caller.

In finance, loans are being managed through AI to prevent likely defaults, fraud and criminal activities. Facebook provides personalised news feeds adapting AI, collecting and analysing our likes to published posts. In combining AI with other technologies to support cross-functional, digital processes, we can remove ROT (redundant, obsolete, trivial) and easily value-add to information we've collected and stored.

We determine what data we have, where it is located, which systems are using that data and for what purposes. Thus, through ML we can remove documents that are no longer needed or are determined duplicates. These big data-optimised devices excel at pouring over millions of files. It's a simple matter for them to identify, flag and even automatically delete duplicates.

In government, we find data analytics has effectively helped agencies to serve the community better, especially in safeguarding community fundamentals like health, safety, housing, economic stability, education and justice. Relying on data science, Government agencies can identify the greatest risk of fire, health code violation or other safety risks involved in the hospitality industry (e.g. restaurants) and make it safer for the community. Predictive analytics has revolutionised today's world, while the military analyses data to predict threat to our country or ASIS for a potential terrorist attack, machines can also quickly detect date fields for use in records retention and adopt recordkeeping compliance with ease. Google already does this in presenting the most recent information first on the search list hit for their end users.

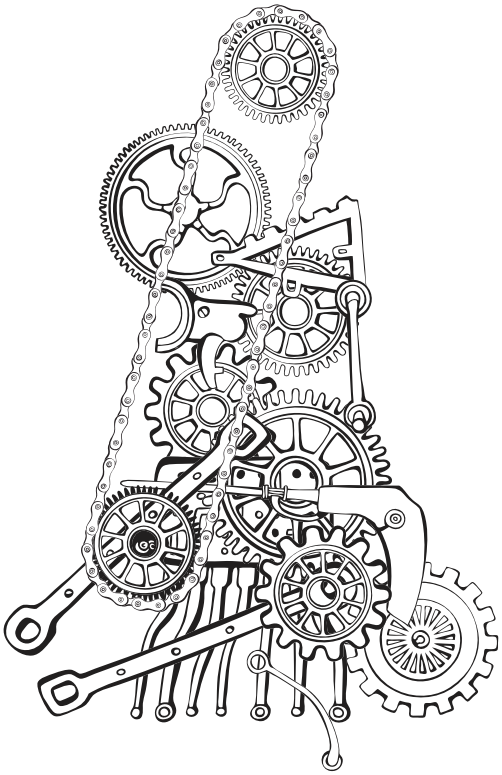
Machine learning is no magic. What it does effectively is that it achieves more from less. Modern theorists have compared learning to farming where nature undertakes major work. To grow crops, farmers combine seeds with nutrients similarly, to grow programs, learners combine knowledge with data. Cloud computing and the accumulation of big data sets have underpinned the recent acceleration in the fields of AI and ML. Advances in areas such as search, discoverability and product recommendations are being led by Google, Amazon (AWS), and Microsoft (Azure).

Empowered citizens demand more from the government while organisations have no choice but to embrace new technology solutions and deliver to meet expectation. Workplace is evolving and becoming more flexible, agile and responsive as repetitive task are automated.

Many decisions that previously may have been escalated are readily available to operational staff through data analysis from smart machines.

We have travelled a long way in the public and private sectors with the potential impacts that AI, machine learning and automation have in increasingly sophisticated data analytics.

With the ease of data access, a greater awareness for compliance has been initiated amid users and custodians.



The good news is that organisations continue to invest in innovative solutions to remain compliant and relevant in the face of ever-changing technology.

ABOUT THE AUTHOR

SUPARNA CHATTERJEE MRIM has completed a Bachelor of Arts with Honours and a Post Graduate Diploma in English Literature. She has worked in State Government, in Records Management for 20 years in many strategic roles and is currently working in IT projects. and Assessment.

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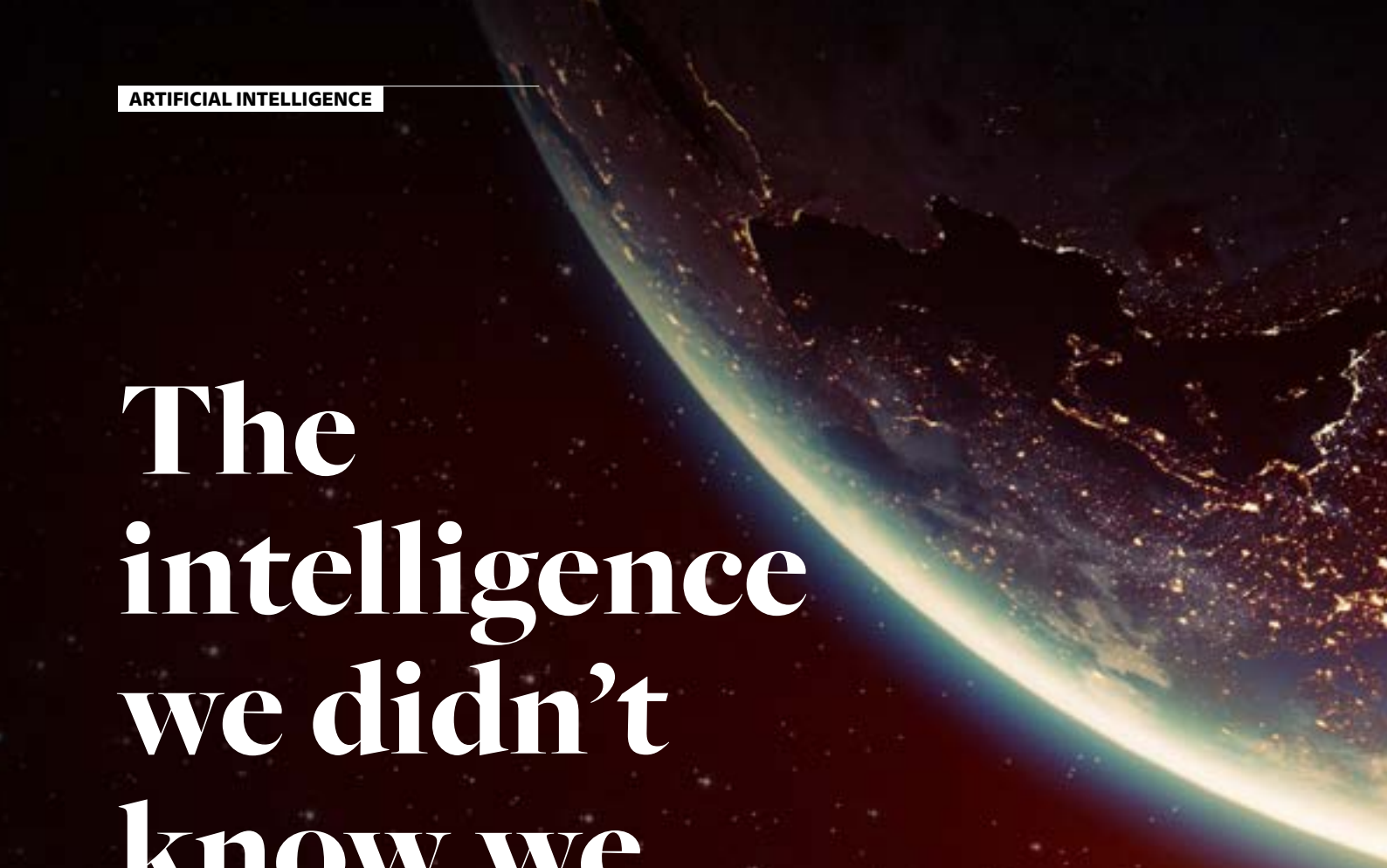

The intelligence we didn't know we needed

Let's dive into the world of Artificial Intelligence and find out what it means for the world of standards.

DR BRONWYN EVANS

As the discussion around Artificial Intelligence (AI) develops, questions such as "should we be afraid of AI?" and "which jobs will be created by AI?" are being asked. Regardless of how valid or otherwise these questions may be, there is one question to be asked of any new intelligence, "what will it do for me?" The answer in AI terms is, whatever you want.

AI is being applied in more ways than ever imagined, and is being considered in different formats for different outcomes. This is the exciting part of developing and implementing something so new. However, there is a step before this where it is stripped back to its essential features and the extent of its use is explored. Enter standards.

In the case of AI, standards can help answer questions such as "what is AI?" and "how does AI work?"

While Standards Australia is working on a number of critical AI projects at a national level, pushing ahead on AI standards without the rest of the world would be unhelpful given that this is very much a global topic. As such, it is up to the joint committee of the International Organisation for Standardisation (ISO) and International Electrotechnical Commission (IEC) (called JTC1 – Joint Technical Committee 1) to bring countries together to work on these international standards.

There are a number of projects already under development, including:

- ISO/IEC DIS 20546 Information technology - Big data - Overview and vocabulary.
- ISO/IEC AWI TR 20547-1 Information technology - Big data reference architecture - Part 1: Framework and application process.
- ISO/IEC AWI 22989 Artificial Intelligence Concepts and Terminology.

But stepping away from the question about what is happening with standards creation, let's go back to the start and ask the question: why standards?

World Standards Day 2018 (October 14) drew global attention to the successes and opportunities of Industry 4.0 and prompted a deeper look at standards as tools supporting this type of rapid change.

Without standards, who knows, "AI" might mean something very different in China compared to in the USA, and something completely different in Peru and India, compared to what it means in France. Standards set a language so everyone speaking "AI" does so in the same language, regardless of their native tongue.

Beyond this, the full extent of AI application possibilities are not yet known – and most likely it will never stop as the technology is developed. In this case, standards have a role to play in ensuring as the technology evolves it remains compatible with all of its applications.

AI is a major factor in the growing impact of Industry 4.0 and as the impact of standards in this current industrial revolution was acknowledged on World Standards Day 2018, it is timely to think about how this innovation and the social benefit it brings, will be maximised with the role of standards.

AI is the fuel of a self-driving car. AI is the first line of defence in new cyber security technologies, and AI could even be the nurse on triage in the emergency department. But for AI to be all these things, we need to have some common language and ensure it works with all types of cars, ensure it aligns with all types of cyber security, and before it starts supporting our health system there needs to be a number of checks in place. Ultimately, standards have the potential to be the engine to an AI machine.

Article courtesy of Standards Australia. https://www.standards.org.au/news/blog/2018/october/the-intelligence-we-didn't-know-we-needed

ABOUT THE AUTHOR

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The importance of human intelligence grows in an AI-driven world

In my 30 years of working in information management, I have always encouraged businesses to use the insights provided by data. In the early days of my career, data was scarce and expensive to store. Today, data is in abundance with free cloud storage available everywhere. Many organizations do not realize the knowledge this data provides to help them make decisions.

BY LISA LEE BRYAN

The irony: businesses have access to their own crystal ball that can show them the future. The key for business is to have employees with skills to turn that data into information.

Some industries focus on analytics as their core product. Genetic research uses analytics to recognize genetic patterns, isolate disease origins, and hopefully find cures. Network security employees use analytics to detect abnormalities in network traffic and spot hackers. Tax professionals, fraud specialists, and the IRS officials use analytics to spot abnormalities in financial statements and tax returns.

Other industries need analysts in specific areas of the business, such as accounting, marketing, forecasting, sales, quality, or production. These employees use analytics to create business critical information for their department. The department manager uses this information to make decisions that provide the competitive edge their business requires. Studying the past trends and patterns can reveal important information about the future.

With the need to convert data to information in every industry and every business, the demand for employees with data analytic knowledge and experience is not surprising. Some businesses cannot justify another employee dedicated to analytics, so they re-train current employees. Large businesses may decide they need a dedicated analyst. Both types of employees will need a solid educational experience which combines knowledge, theory, and analytical tool application.

“With the need to convert data to information in every industry and every business, the demand for employees with data analytic knowledge and experience is not surprising.”

The ideal educational experience for these students provides the knowledge needed of statistics, database design and management, programming, data mining, visualization and predictive modeling. Statistics is at the core of these studies. Data analytics is considered by many as applied statistics. Database design and management is important as the student will often find data stored in database structures.

Modern learners need to understand how to create data warehouses which function to create specialized datasets for analysis. They must understand how to structure these warehouses and create the scripts which run and populate the warehouses.

Programming languages such as R, Python, and SAS are well-known and required in data analytics. Data mining is the field of searching through large datasets and looking for patterns. Visualization is turning the data into charts, graphs, tables, and pictures that allow the user to better see summary data and trends. Predictive modeling takes the past data and builds models to predict variables into the future.

The foundational knowledge and theories must be accompanied by experience using the tools in the business. Employers want someone who has actually done analysis with industry tools.

Modern learners must practice using programming languages to examine large data sets. They must use visualization and begin to experiment with conveying information through pictures and charts versus numbers. Since employers look at the student’s resume often in the form of a project or

work that has been created, profiles on Github are critical to obtaining a job in the field. These profiles of work provide a portfolio for the employer to examine knowledge and application.

Certifications from major analytical tool vendors also can assist the student with demonstration of knowledge to an employer. Numerous large analytical tools vendors offer certifications for class completion or skill demonstration. SAS, one of the largest statistical and analytical tool vendors, offers a joint educational partnership certificate with institutions who have programs and courses that require application of tools in the analysis of large data sets. Other industry specific certifications like Google Analytics offers verification of knowledge in the area of web analytics.

Once trained, these employees provide the information businesses need to make decisions. Businesses that have often relied on human instinct and intuition can now use data to look into the future. Trusting that data-derived information, often, comes hard for some business executives who worry about the accuracy of analytics.

Computer programs actually reduce the bias that human intuition can contain. Through tools like predictive modeling, analysts can look into the future allowing businesses to adapt, grow, and gain a competitive advantage.

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Artificial Intelligence: from concept to reality

Artificial Intelligence (AI) and Machine Learning (ML) is seemingly everywhere. An algorithm probably suggested the news articles you read this morning, Facebook might tag your friends in a photo, or you might watch content suggested by Netflix.

Perhaps you'll buy a product based on an Amazon recommendation today. As technology becomes more accessible, the pressing question facing businesses is how they can actually progress AI from a concept to reality. It might be less painful than you think.

BY JAMES WILSON

For many businesses AI and ML can seem out of reach, and only accessible to those companies with billion dollar budgets and armies of PhD's. The reality is it's never been easier to get started with AI or ML. Cloud giants such as Amazon, Google and Microsoft have developed services that can be consumed on a pay-as-you-go basis and there's a vibrant global open source community.

> **"In our experience the best AI and ML projects focus on solving real world problems rather than demonstrating technology capability"**

LET'S DEFINE ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING

Broadly speaking, AI refers to machines performing tasks that have traditionally required human level intelligence. Although, this is a moving target as our expectations of machines is constantly changing. A few years ago, Google maps felt like AI but today it seems basic when compared with the latest technologies.

To keep things simple, I'll focus on a field of AI called Machine Learning. This technology has been around for decades but until around 10 years ago its applications were limited. ML systems require huge amounts of data and compute power which were only available to wealthy organisations. Over the past 10 years the digital economy has produced unprecedented volumes of data and the Cloud has made almost unlimited compute power accessible. This has resulted in the proliferation of ML technologies across a broad range of industries. Most of the systems we think of as AI today are powered by ML.

Cassie Kozyrkov is Chief Decision Intelligence Engineer at Google and describes Machine Learning as "a thing-labeller". Traditionally when we want to build a system that's good at labelling, let's say it labels financial transactions as "legitimate" or "fraudulent", we use instructions to help it understand which label to apply.

LOWEST COST

APIs Lowest Cost

AI/ML solutions available via an API. No data science expertise required.
Amazon, Google, Microsoft, IBM

Pre-Trained Models

Open source models designed for specific use cases
MobileNet & YOLO (object detection)

Last Mile Training

Take a pre-trained model and add functionality (training) to support a custom use case
MobileNet & YOLO both support last mile training

Custom Models

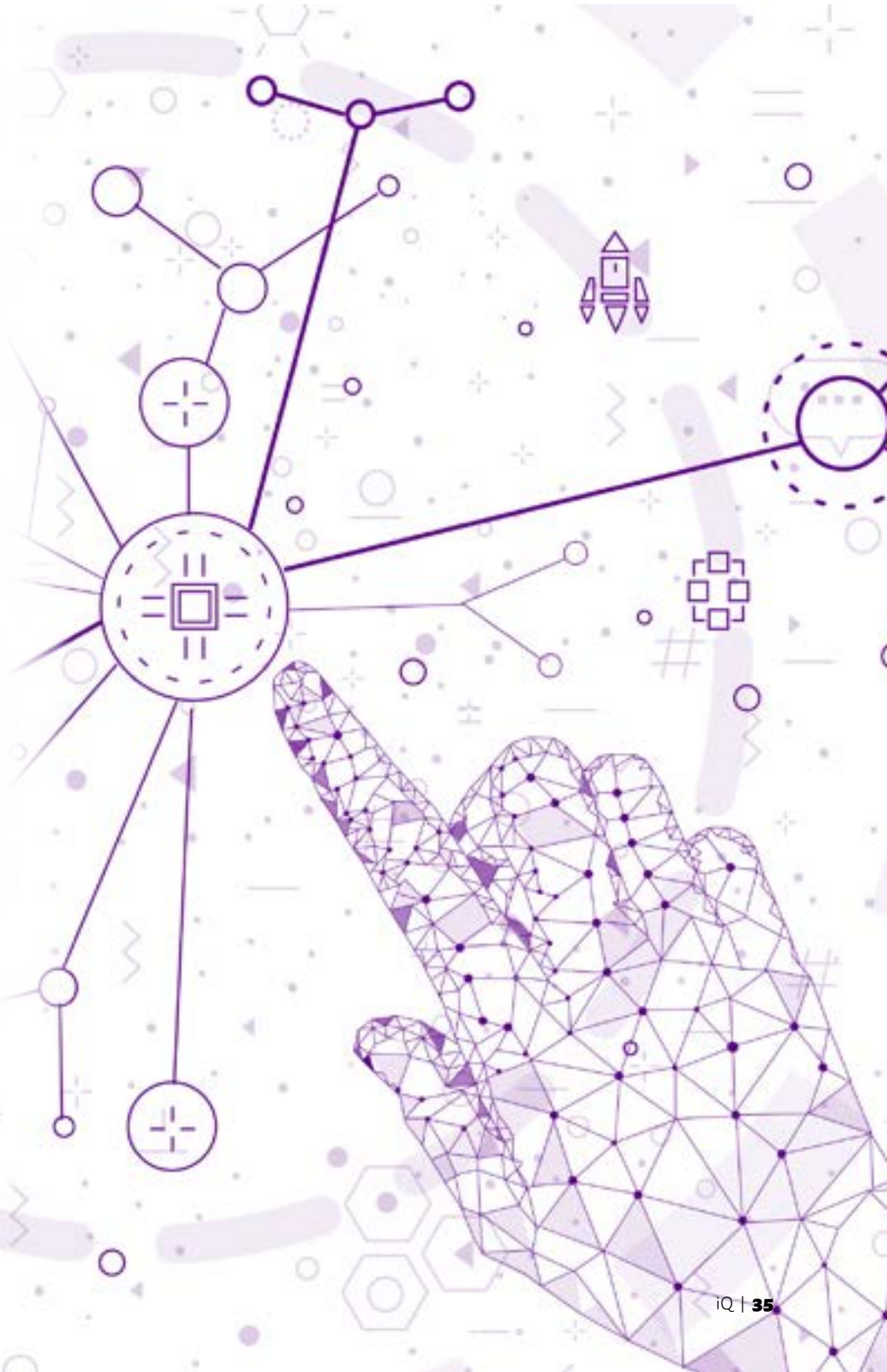
Custom models built from scratch.
Suitable for use cases not available via API's or pre-trained models

HIGHEST COST

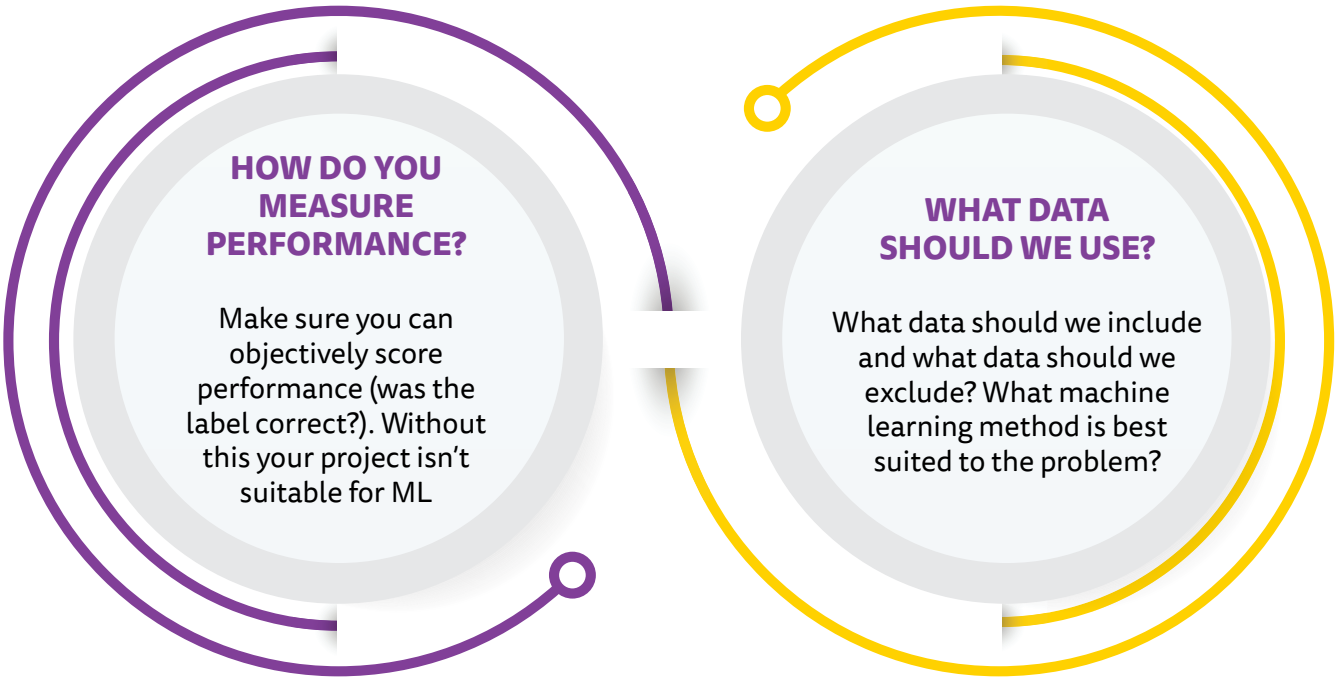
With ML, rather than using instructions we use examples. This becomes particularly useful when writing the instructions would be prohibitively complex. Imagine trying to describe instructions to identify every species of cat. ML can provide a machine with lots of pictures of cats and tell them what type of cat is in the picture. Supply enough examples and the machine will differentiate the different type of cats.

HOW COMPANIES ARE USING AL AND ML

Broadly speaking companies are applying AI and ML in three ways.
1. Embed within products and services: Recommender systems that suggest products and services, voice and chat interfaces for customer sales and service channels, personalised user experiences.
2. Automate internal processes: Automate manual processes such as reading long form documents and contracts, chat and voice interfaces for employee services, HR automation such as CV scanning and profiling.
3. Provide new business insights: Extracting insights from unstructured data such as images and video. 'Use Cases' include analysing call center recordings to identify customer sentiment, analysing retail camera footage to extract insights such as demographic of customers, frequency of visits and conversion rates.



IS YOUR ML IDEA FEASIBLE?



IDENTIFYING 'USE CASES' IN YOUR ORGANISATION

In our experience the best AI and ML projects focus on solving real-world problems rather than demonstrating technology capability. AI and ML is a hot topic that many people are interested to learn about. This excitement and interest can be harnessed within your business. Cassie Kozyrkov's labelling definition is a great way to get people thinking about the types of problems they could solve with ML. What kind of things could we label? How could these labels be used to deliver commercial value?

When assessing the feasibility of an idea there are two key considerations:

how will performance be measured and what data will be used.

If we want to label job applicants as "suitable for the job" or "not suitable for the job" measuring performance could be difficult. If we label someone as not suitable and reject them they might go on to become a star performer working with our competitor. Our system may be labelling incorrectly but we have no way of knowing.

Deciding what data to use when assessing people could have huge implications.

APPLIED MACHINE LEARNING

> **"A few years ago, Google maps felt like AI but today it seems basic when compared with the latest technologies"**

For example, if you place a high emphasis on recent work experience it might discriminate against people returning from parental leave. ML systems require quality and quantity of data. If you are trying to label financial transactions as "fraudulent" or "legitimate" you will need a long history of transactions that fall into both categories that the machine can learn from.

Once you've identified some commercially viable 'use cases', define how you will measure performance, and assess what data will be used to train the machine. The next step is to assemble the delivery team.

TEAM CONSTRUCT

Over the past decade we have seen a major shift in the way work is delivered. Businesses have embraced self-contained, multi-disciplinary teams all focused on a customer outcome. Having all the people required to deliver an outcome sitting in one team minimises inefficiencies and drives shared purpose and engagement. The same applies to AI/ML projects. Bringing together data science, engineering and business leadership keeps the team focused, nimble and minimises waste.

The single most important role on an AI and Ml project team is the business decision maker. This person will decide what problem the team should solve and brings deep domain expertise to the group. This helps to ensure the project delivers commercial value.

One of the reasons AI and ML can seem inaccessible is the need for specialist skills such as PhD qualified researchers. It's important to remember the difference between AI and ML research and applied AI and ML (which means taking models and algorithms built by others — commercial products or open source — and applying them to your business domain).

Applied AI and ML doesn't require PhD educated researchers. It requires a careful balance of data science and engineering to ensure the system can operate at scale and with production-grade reliability.

ETHICS

The ethical risks associated with AI and ML, specifically automated decisioning systems, is a hot topic. These risks are human risks rather than technological. It comes down to the way we choose to build, market and utilise these systems. AI and ML systems make predictions based on historical data, predictions are not facts. If Netflix recommends a movie it's not a guarantee that you will enjoy it. It's a prediction based on historical data. If that prediction is right most of the time, that's probably ok.

In the scenario where a system is analysing data and making a prediction about the likelihood of a criminal re-offending, and this prediction impacts their chance of being granted parole, the stakes are much higher. As we know, getting it 'right' most of the time is not good enough.

This may sound like a dystopian future or a science fiction movie, but it's happening today. Authors Ellen Broad, Cathy O'Neill, and Virginia Eubanks have described how automated decision systems are having a significant social impact, including what is occurring here in Australia.

As AI and ML become more mainstream many of us will come into contact with the technology. Perhaps your company will consider buying or building an AI or ML system. Perhaps a government agency you interact with will propose deploying one.

You don't need to be a technical expert to ask important questions such as:

What's the purpose of this system, and who is it meant to serve and why? What data was used to train the system, what gaps exist, and what are the impacts of these gaps? How is feedback captured and used to improve the performance of the system? What recourse do users have if they feel they have not been treated fairly?

The answers to these questions can help uncover important risks that if ignored could have material impacts to trust, transparency and fairness.

ABOUT THE AUTHOR

JAMES WILSON is CEO of Melbourne-based AI/ML consultancy Eliiza. Having spent the past decade working in digital transformation across financial services, telco, wagering and media, he has seen first-hand the impact of rapid technology and business model change. James is passionate about the ethical impacts of AI/ML. He is a host of the AI Australia Podcast, interviewing thought leaders in the field of AI ethics, and showcasing Australian businesses that are embracing AI. James also co-organises the Responsible AI Australia group which seeks to raise awareness of the ethical risks associated with AI/ML and identify strategies to mitigate. Subscribe to the AI Australia Podcast https://itunes.apple.com/au/podcast/ai-australia/id1441892564?mt=2

Artificial Intelligence for Information and Records Management

The Next Frontier

There is significant interest and commercial activity by information management vendors in the area of Artificial Intelligence (AI) that is affecting or will likely soon affect organisations in every area. With the exponential growth of AI Information and Records Management professionals need to understand business drivers for using AI and where it might be going.

BY LINDA SHAVE

> "The issues surrounding data in an era of AI specifically are complex and deserve to be deliberated and debated"

There is a need for everyone involved in AI to stop and think about who is going to be affected by it and who needs to be consulted. Information and Record Management professionals need to be part of the larger conversation and to be an integral part of any standards, policy or regulatory bodies or committees to provide input, and standardise or oversee AI in the context of information management.

Information and Record Management professionals were not consulted or involved in a lot of the computer and internet developments of the past 50 years or so and the results now speak for themselves. AI is here and Information and Record Management professionals need to embrace it.

ARTIFICIAL INTELLIGENCE

Artificial intelligence is not a new idea. The term itself dates from the 1950s and has been linked to pioneers such as Alan Turing and John McCarthy. Alan Turing was a mathematical genius and a cryptologist who pioneered the breaking of the Enigma cryptographic machines code. In 1950, Turing published an article 'Computing Machinery and Intelligence' followed by the Turing Test.

The Turing Test initiated the concept that if a machine can impersonate a human and convince the other person involved in a real-time conversation that he is interacting with a human (not a machine), then the machine is 'intelligent'.

John McCarthy was a cognitive scientist and one of the founders of the field of AI. In 1955, McCarthy coined the term 'artificial intelligence' in his proposal for the 1956 Dartmouth University summer research project, the first AI conference. The objective was to explore ways to make a machine reason like a human, be capable of abstract thought, and problem-solve. The workshop is considered by many to be the epoch-making event for artificial intelligence as a field. Indeed, many of the concepts and terminology we use today to describe AI were bestowed to us during this era.

Awareness and understanding of AI varies across different segments of industry and society. For example, the terms Artificial Intelligence, Machine Learning (ML), cognitive technologies and cognitive computing are commonly used. AI and ML are often combined or confused; despite machine learning being a sub-field of AI. ML automates analytical model building using statistics, operations research and physics to find hidden insights in data

On the other hand, cognitive computing is another sub-field of AI; its objective being for a machine to simulate human processes through the ability to interpret images and speech with the aim to have a natural, human-like interaction with machines. Cognitive technologies are products of the field of AI, products that are able to perform tasks that only humans used to be able to do. It is in the areas of cognitive technologies and ML that we are now seeing significant interest and commercial activity by vendors. It is these areas of AI that will potentially affect or will likely soon affect organisations, industries and societies.

HOW ARTIFICIAL INTELLIGENCE WORKS

Government and the enterprise continue to collect, process and store massive amounts of structured, semi-structured and unstructured data (see Table 1). AI works by combining large amounts of complicated and unorganised data sets, then using fast, iterative processing and intelligent algorithms to create and translate that information into meaningful insights. These meaningful insights are also providing the capacity for the artificial intelligence system to learn automatically from patterns or features found in the data.

SOME COMMON TERMS USED IN ARTIFICIAL INTELLIGENCE

Artificial intelligence encompasses a broad field of study which includes many theories, methods and technologies and sub-fields. In addition, there are also a number of technical terms used in the field of artificial intelligence, Table 2 provides a list of some of the most common terms.

INFORMATION AND RECORDS MANAGEMENT IN AN ERA OF ARTIFICIAL INTELLIGENCE

To date large amounts of complicated and unorganised data sets and the use of fast, iterative processing and intelligent algorithms to translate information into meaningful insights has been an essential component of most present-day advancements in AI. The issues surrounding data in an era of AI specifically are complex and deserve to be deliberated and debated by the information and records management industry. These discussions might consider issues to do with designing and developing artificial intelligence systems, including the use, management, security, control and exploitation of data, digital twins (digital representation of your business) and potential risks by artificial intelligence systems.

It is perhaps a good time to distinguish between data generally and personal data. Personal data has a specific meaning under the Data Protection Act and generally covers any set of information relating to individuals. In business terms it can be argued that the key to competing in the global digital world is the power and commercial opportunity determined by the quantity and quality of data that the organisation has access to. Questions around privacy are more specifically associated with personal data and the control or custody of data in general is more of an established legal notion.

Other areas for consideration for information and records management might include 'anonymisation' while this function may normally sit within the realms of the IT department information and records management professionals could benefit from understanding what the term means and what it might mean for safeguarding an organisation from possibly breaching Data Protection.

ANONYMISATION

Anonymisation or de-identification sits within the area known as 'data science'. This is where business datasets are processed to remove as much data as possible that relates to individuals such as names, addresses and other identifying features that might identify an individual. This is particularly important in the era of Big Data and with the collection of sensor data where the sharing of large quantities of real time data is becoming common place. For example, government agencies and organisations handle many different kinds of datasets containing personal data. However, in the era of artificial intelligence this has the potential to become problematic because artificial intelligence systems can be used extremely efficiently at re-identifying people. Anonymisation and/or de-identification is a method of removing identifying features. However, with algorithms and pattern recognition artificial intelligence systems can be effective at adding data features back into datasets by cross-referencing other available datasets. This in turn could place an organisation at risk of exposing inadvertently information that might identify an individual.

> "Artificial Intelligence and Machine Learning are often combined or confused"

INFORMATION AND RECORDS MANAGEMENT EDUCATION FOR ARTIFICIAL INTELLIGENCE

AI, intelligent algorithms, machine learning and cognitive computing are terms which will continue to be used in the information management arena and in the development of new products and services. Such products and services generated from AI provide challenges and opportunities for information and records management professionals into the future. There is a need to improve our understanding of artificial intelligence and how artificial intelligence could be used for information and records management. Our understanding should include pitfalls (such as those mentioned in anonymisation), identify any legal impacts on current regulatory frameworks, cyber security and ascertain what policies and procedures may need to be considered when embarking on an AI project for information and records management.

It is therefore imperative that academia and educational institutions ensure that the programs/courses of the future include studying machine intelligence plus AI and its sub-fields such as machine learning, natural language processing, cognitive computing and intelligent automated processing. Such programs/courses might include examples of how AI and its sub-fields topics could relate to information and records management.

Table 1: Breakdown of the three data types structured, semi-structured and unstructured

DATA TYPE	DESCRIPTION
Structured	• Fixed Layout • Defined Content • Consistent Formats
Semi-Structured	•Unknown Layout • Defined Content • Variable Formats • Tabular Data
Unstructured	•"Unknown Layout • Variable Content • Multipage Documents

Table 2: List of some of the most common artificial intelligence terms

NAME	DESCRIPTION
ALGORITHMS	A process or a series of instructions for performing a calculation or solving a problem. Algorithms can perform calculation, data processing and automated cognitive tasks. Algorithms form the basis for everything a computer can do, and are therefore a fundamental characteristic of all AI systems.
MACHINE LEARNING	AI and ML are often confused. Machine Learning is a method of data analysis /statistical process that starts with a body of data and tries to derive a rule or procedure that explains the data or can learn from and improve with experience to make predictions or solve problems.
NEURAL NETWORK	Also known as an artificial neural network, is an information processing model which is a type of machine learning inspired by the structure of the human brain. A neural network is composed of simple processing nodes, or 'artificial neurons', which are connected to one another in layers.
DEEP LEARNING	A variation of neural networks. Deep learning uses structures loosely inspired by the human brain, consisting of a set of units (or "neurons"). Each unit combines a set of input values to produce an output value, which in turn is passed on to other neurons downstream. Deep learning uses many layers of neurons to solve complex problems and is often used to classify information from images, text or sound.
COGNITIVE COMPUTING	Cognitive computing strives for a natural, human-like interaction with machines. The aim of utilising cognitive computing with artificial intelligence is to simulate human processes through the ability to interpret images and speech and then speak coherently in response.
NATURAL LANGUAGE PROCESSING	Natural Language Processing (NLP) is the ability of computers to analyse, understand and generate human language, including speech. The next stage of NLP is natural language interaction, which allows humans to communicate with computers using normal, everyday language to perform tasks.

ARTIFICIAL INTELLIGENCE THE FUTURE IS HERE

AI provides new capabilities and clearly presents significant opportunities for the information and records management profession. In order to reap the benefits of AI, it is the perfect time for information and records management professionals to take on the role of advocates and advisers for the design of AI solutions for information and records management. The future of AI is here and we need to embrace it.

ABOUT THE AUTHOR

LINDA SHAVE is acknowledged as a thought leader and architect of change. She is a researcher, consultant and auditor in areas of virtual information asset management, business process management, cloud migration, corporate governance and risk management. Linda is a former CEO, CIO and a member of numerous professional organisations.She can be contacted at linda.bizwyse@gmail.com

When it comes to inclusion, questions matter!

Re-entering the workforce is no doubt a daunting experience for the vast majority of parents following a career break to raise their family. While updating and crafting resumes and landing job interviews can be challenging enough for people returning to the workforce, juggling a minefield of interview questions also poses challenges for interviewees. Unfortunately, all too often employers ask job candidates inappropriate questions that have no place in interviews.

BY DAVID PICH

> "I see you have two kids; how do you think you will juggle your home life with this role?"

My partner, Eileen, decided to return to the world of work after spending time as the CEO, COO and CFO of Pich Inc. While these crucial leadership roles involved all those critical managerial skills (setting strategy, defining culture, making decisions, leading two young daughters, etc.) they were sadly very poorly paid. In fact, the salary was reduced to 'absolutely nothing' after the initial 12-weeks of minimum wage maternity pay!

Dipping a toe back into the job market is undoubtedly a daunting experience for the vast majority of parents or primary carers who have spent a decent period doing the parenting and primary carer thing. It's fair to say that Eileen was more than a little nervous and apprehensive. In her favour, she had a strong CV which included experience in Australia and Germany, a degree in marketing communications and a personal skill set that was actually honed at home with the kids. If she could manage and lead our two monkeys successfully, the workplace would be an absolute breeze!

She soon spotted a role on Seek and sent off her CV and nicely-crafted covering letter. She scored an interview with the manager. The interview went well. She was invited to spend an afternoon with an employee doing a similar role. The road trip went well. She was asked to complete a written 'sales and marketing assignment' (oddly relating to selling toothpaste – the role had nothing to do with selling toothpaste!). Again, she did pretty well.

The local manager said he wanted her to 'meet' the company's CEO in Sydney on a Skype call. Eileen was over the moon. Her first application and she was scheduled to chat to the CEO – score!

And then this happened.

The CEO asked Eileen, "I see you have two kids; how do you think you will juggle your home life with this role?"

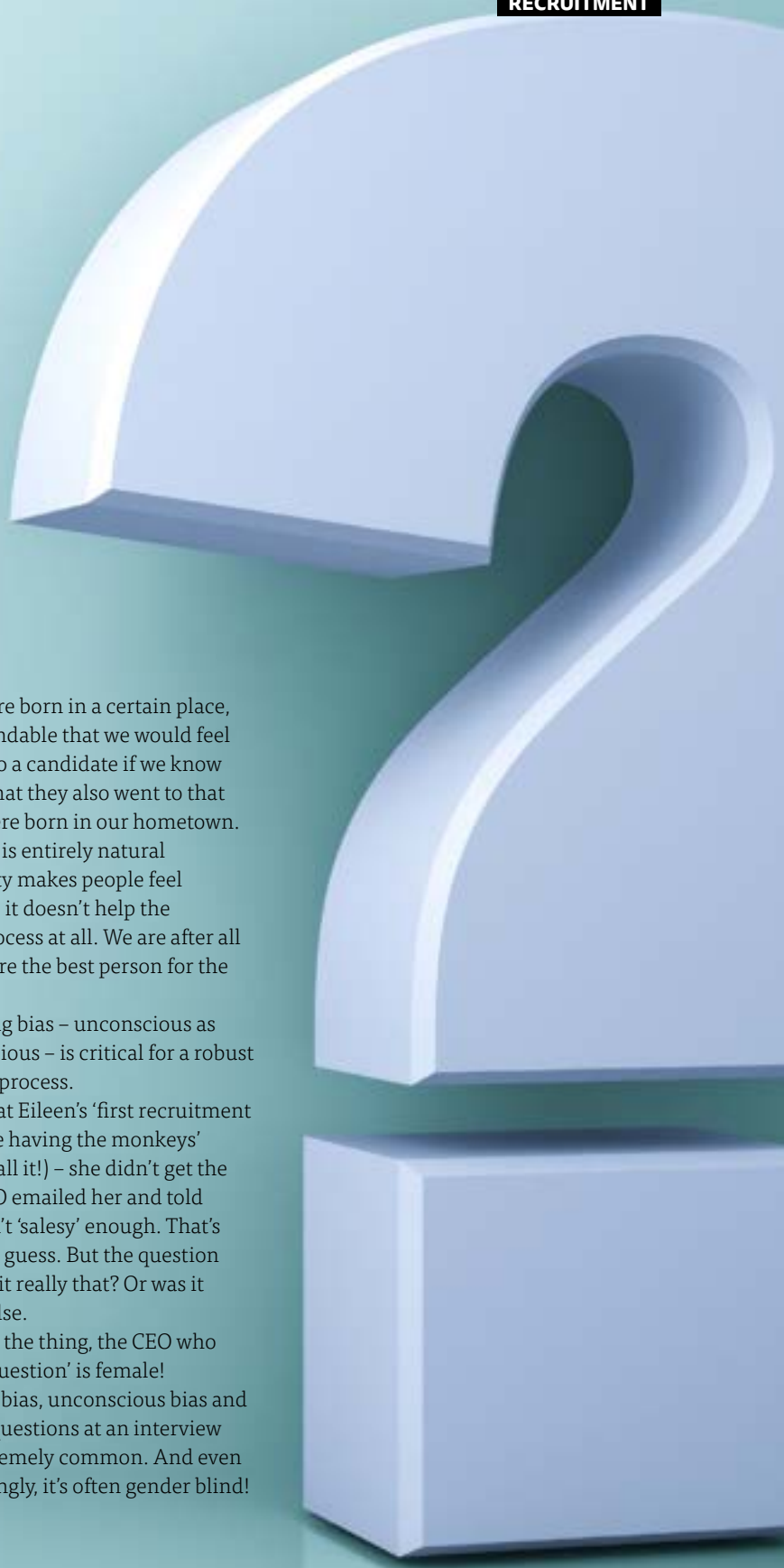
Let me state for the record that since Eileen and I have had our kids – Pearl and Olive – I have had three jobs. I have never (in the more than eight interviews that were involved in getting these roles) been asked how I will 'cope' with balancing my home and work life. The only time my family has been brought up was at the end of the interview in the part that might best be described as 'general chit chat and small talk'. My family life, hobbies, passions and what I get up to in my spare time have never formed any part of a serious interview question.

And nor should this be the case. Ever. Not for me, not for Eileen and not in any interview for any role.

Unfortunately, all too often the opposite occurs. All too frequently questions are asked in interviews that have no place in interviews.

Robert Half, the global recruitment company, published a list of example questions and statements that should never be asked or made during an interview[1]

While not intending to be



comprehensive the below list offers a reasonable starting point.

Age: How old are you?

Disability/impairment (physical and mental): How many sick days did you take last year?

Family/carer's responsibilities: Are you the carer for elderly family members?

Marital or relationship status: Are you married?

Parental status: Do you have children?

Political beliefs and activities: Are you a Liberal voter?

Pregnancy: Do you plan on becoming pregnant anytime soon?

Race: What's your nationality?

Religious beliefs and activities: Are you Christian?

Gender (including sexual harassment): Females rarely succeed in this industry.

Sexual orientation: Are you gay?

Union or employer-association membership: Are you a member of the Union?

An alternative to the whole 'what should or shouldn't I say in an interview' approach, is what might be described as 'the nuclear option' in progressive selection processes; inclusive recruitment.

Inclusive recruitment – often called 'blind recruitment' – comes in a variety of forms. In the purest sense, it involves removing all references to potential discrimination triggers at the very beginning of the selection process. This would include deleting references to age, marital status, gender and sexuality from the CV before it is scrutinised. In some cases, references to educational institutions and addresses are also removed.

The intent of implementing inclusive recruitment is to eliminate bias – both conscious and unconscious. Numerous studies have shown that, whether we like it or not, we all have unconscious biases that cloud our judgements.

When selecting the best person for a role, clouded judgement does us and the organisation little favours.

For example, if we went to a particular school or were born in a certain place, it's understandable that we would feel an 'affinity' to a candidate if we know in advance that they also went to that school, or were born in our hometown.

While this is entirely natural (commonality makes people feel comfortable) it doesn't help the interview process at all. We are after all looking to hire the best person for the role.

Eliminating bias – unconscious as well as conscious – is critical for a robust recruitment process.

Back over at Eileen's 'first recruitment process since having the monkeys' (as we now call it!) – she didn't get the role. The CEO emailed her and told her she wasn't 'salesy' enough. That's fair enough I guess. But the question lingers. Was it really that? Or was it something else.

And here's the thing, the CEO who asked 'that question' is female!

Conscious bias, unconscious bias and asking silly questions at an interview is, sadly, extremely common. And even more worryingly, it's often gender blind!

7 TOP TIPS

... for leaders wanting to recruit the correct way

1

Ensure a thorough job analysis and job description is developed at the beginning of the process.

2

Establish a clear set of selection criteria based directly from the job description. Know what and who you are looking for.

3

Interviews should be an objective information gathering process. The focus should be on:

- Skills and knowledge.
- Work history and professional experience.
- Education and training.
- Personal attributes and behaviour.

4

A set list of interview questions that should be asked of all candidates in order to gather consistent information about every individual.

5

Even if you are part of a smaller organisation, always have a colleague with you in the process to ensure you have more than one opinion and interpretation of the selection data.

6

It is important to make the selection decision as soon as possible after the recruitment and selection process has been completed. Do not allow the process to drag out as the best candidates may accept another role.

7

Keep in mind the culture of your organisation and whether the personal attributes and behaviours of the individual will fit within that culture.

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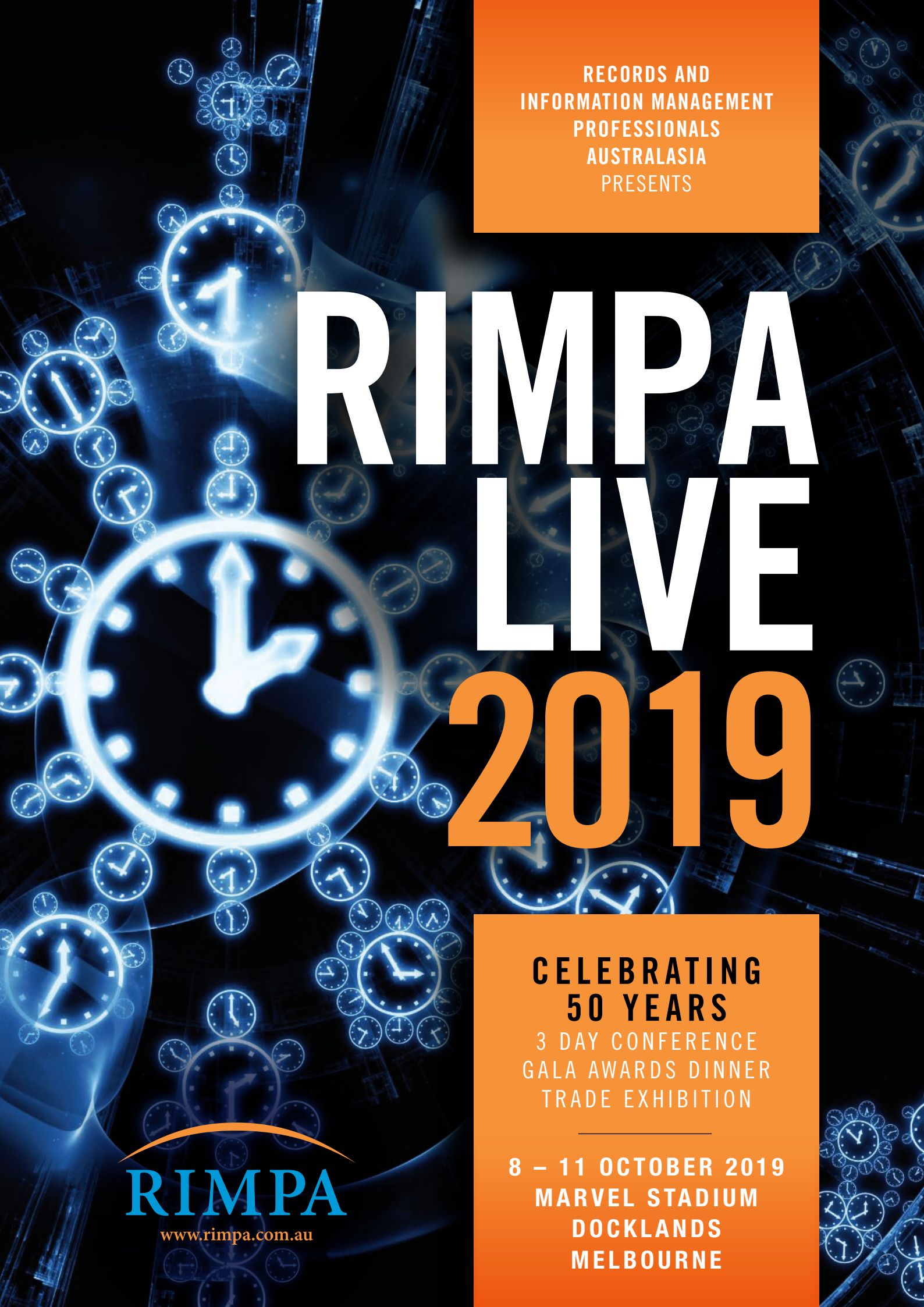

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Managing resistance to change:

Engaging and shaping

Managing resistance should not be left to a plan to cope with those cohorts of people or individuals who resist change. It needs to be part of thinking about the change and how to minimise it in the first place.

BY KEVIN DWYER

Without exception, all popular change management models tell us to expect resistance to change and for managing resistance to be planned for formally. Some models encourage us to complete a resistance to change plan identifying the likely sources of resistance, be that cohorts of people or general reactions to change activities completed, as part of the change or notions about the change. Additionally, we are advised that to reduce resistance to change we should ensure that we do change right the first time.

Research by Prosci (Prosci, 2018) conducted over many years revealed that over 40% of responding organisations believe that more than 50% of the resistance encountered in their change projects is avoidable.

> **"What is less clear, is how to avoid that resistance in the first place, and "do change right the first time"**

Less than 10% believe that the resistance they encountered in their change projects was unavoidable. Managing resistance has proved avoidable but difficult in many organisations.

What is less clear, is how to avoid that resistance in the first place, and "do change right the first time".

Our own research and experience, has shown us that to develop the changes in behaviour and actions desired from a change, two things must occur. One is that the cohorts of individuals that will form a critical mass for the change to be successful must develop a personal intention to change. The second is, that the line managers of these cohorts of individuals need to provide an environment where that intention to change can be converted into action and the new behaviours reinforced until they become the norm.

FIGURE 1: ENVIRONMENT REQUIRED FOR CHANGE TO OCCUR

From the Theory of Planned Behaviour (Aizen, 2018), we know that an individual's attitude toward the new behaviours, the subjective norms regarding the new behaviours, and their perceived behavioural control, combined with their experience with similar changes, together shape an individual's behavioural intentions.

- **Attitude:** People need to have a positive belief about the behavioural changes required and the change overall and that belief must be "top of mind".
- **Subjective norm:** People need to believe that the changed behaviours and actions are the norm and that it is good in their social circle to follow that norm.
- **Perceived behavioural control:** People believe they have the necessary skills and knowledge, access to information and authority to execute the new behaviours and actions. And the baggage they carry from previous change efforts does not negate the belief they have in their capability and capacity to be successful with this change.

FIGURE 1: Environment required for change to occur

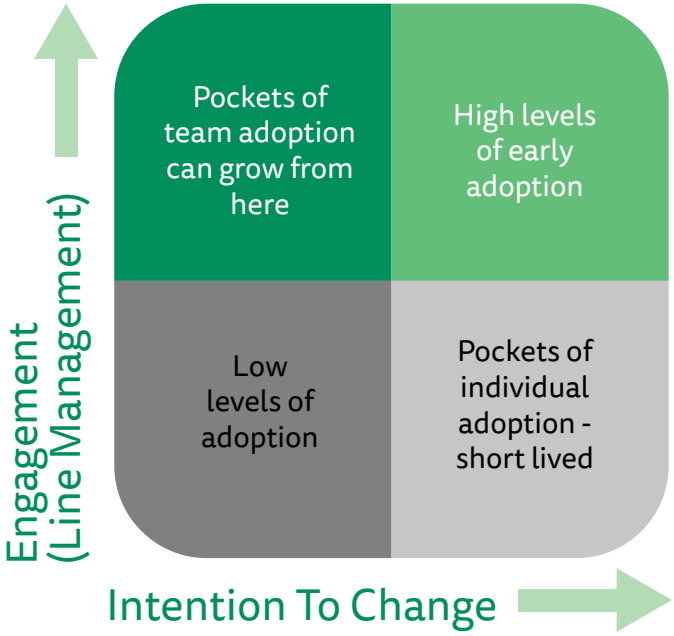

FIGURE 2: Theory of planned behaviour - forming the intention to change

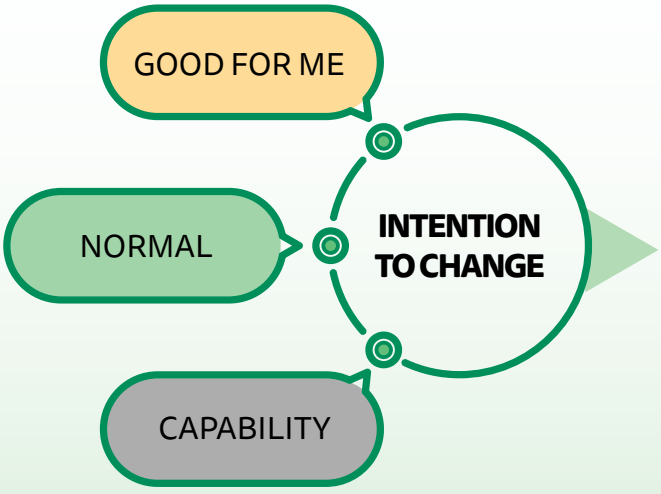

FIGURE 2: THEORY OF PLANNED BEHAVIOUR – FORMING THE INTENTION TO CHANGE

We also know, that to truly engage line management, we need to ensure that they have traversed all five stages of engagement:

- understanding the change
- caring and believing in the change
- prioritising activities regarding the change
- planning for the change
- executing all the activities required to fully embrace the change.

FIGURE 3: Stages of engagement

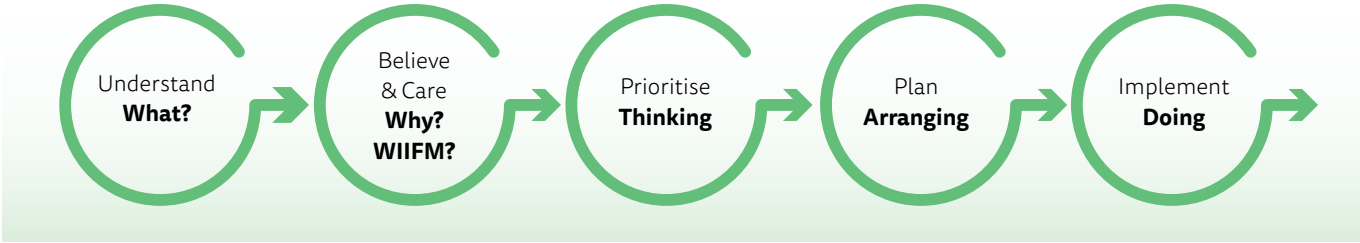

FIGURE 3: STAGES OF ENGAGEMENT

PLANNING CHANGE

The Heath brothers, (Heath & Heath, 2010) give us some good pointers at the individual and line management level, about how we can improve our ability to obviate the need to manage resistance, by "doing change right the first time".

The authors advice is to use a very basic three-part framework to guide us in any situation where we need to change behaviour:

1. PROVIDE CLARITY IN DIRECTION.

Individuals: Without clarity in the expected behaviours and actions, it is impossible for individuals to form consistent beliefs about the personal changes they may have to make. Rather, they will fill in the gaps, often erroneously, and resist perceptions of the changes they must make, the support they will receive to give them the necessary capability and capacity to change and it is impossible to develop any cohesive social pressures as each individual will have differing perceptions of what reality is.

For example, imagine we are undertaking a major effort to improve the share of wallet of each transaction we have with customers, the level and frequency of repurchase and the reach of recommendations to people who currently do not buy from us.

Imagine that we are focusing on the level of service we provide our existing customers to impact each of those three elements. If, as I have often seen be the case, we offer training in generic customer service to instill in our frontline workers a belief in customer service is being part of our vision and therefore something they should believe in and practice. Even when these training programs are quite good at providing both the rationale for providing good customer service, the elements that make up good customer service, case studies and practice sessions about good and poor customer service, they are insufficient (to provide the clarity required by people to understand the changes required in their behaviours and actions to achieve the goals and targets we have set out to reach).

What is necessary in addition to generic training, that builds belief in the need to provide good customer service, is training that is more specific about elements including, but not limited to, the way we expect staff to interact with customers in different circumstances and questioning plus listening skills and product knowledge. Being more specific allows people to understand both the changes in behaviour required, and make a rational evaluation as to whether they have a positive belief about the changes or not.

It also helps their perception that they have the capability and capacity to execute the change behaviours back in the workplace.

To further improve the probability of transferring this learning back to the workplace and making our expectations clear, we also need a performance management approach that rewards improvements in skill and knowledge required to execute the desired behaviours and actions. This is in addition to or instead of, rewarding actual behaviours and actions and end results. It is insufficient to reward just the end results as this does not make it clear what is the new subjective norm regarding customer service.

Line Managers: Using the same customer service example, without clarity about what the changes are, what the benefits for the line manager and their teams are, what we expect them to do, what to plan, how to plan and what to execute and measure, line managers are not truly engaged. They are unable to evaluate whether they should prioritise the actions they need to take to support their team over the many other things they need to do each day, week or month. Each of the line managers will instead execute to their best efforts at the level of interest they personally have in providing better customer service.

This is a frequent error in the planning of change management programs. We complete a sponsor roadmap or stakeholder management plan without being specific enough for

line managers to be consistent in their approach. We fail to understand and cater for, the varying levels of support different line managers, with different backgrounds and experiences and personalities, need to achieve anywhere near a consistent approach. The outcome of inconsistent approaches is a high degree of variation in the degree to which intentions formed by individuals to change are converted into consistent actions, that our customers experience.

2. ENGAGE PEOPLE'S EMOTIONAL SIDE.

Individuals: Numerous studies (THOMPSON, 2018) have revealed, that the long-held economists view that consumers of goods, services and advice, make rational decisions is wrong. People make emotional decisions the majority of times, including in the workplace. As well as giving clarity to people on the detail of the change as it pertains to them, we need to equally, and at times, more strongly, give them an emotional reason for making the change. Emotional reasons will enable them to have a strong belief in the change and to encourage others to accept that change is the norm. Emotional reasons also give people strength in going through the process of building the capability and capacity they need to execute the new behaviours and actions.

Emotional reasons are personal. However, in any change we should be able to determine for different cohorts of people what the key emotional reasons are likely to be. The usual suspects are personal reasons such as power, status, freedom, authority and purpose. Or they may be more community-minded reasons such as the environment, social cohesion and social betterment. Or they may be internal to the organisation and its clients in terms of teamwork, customer satisfaction or industry recognition.

By giving individuals a reason to believe other than pure logic, we give them intangible reasons to persevere and to adapt and adopt new behaviours and actions. Intangible reasons which often a stronger than the rational reasons we may communicate in the case for change.

Line Managers: A key point in the engagement journey for line managers, is the point at which they begin to prioritise the activities they need to pursue to plan and implement the changes required over other activities they might otherwise have pursued. In some organisational cultures, this may be done by a command control exercise. However, having line managers reach this point because they care and believe in the change even for irrational over rational reasons gives rise to a set of management behaviours, which are stronger, last much longer and are resistant to issues which otherwise might cause a reversion to old behaviours.

3. SHAPE THE PATH PEOPLE CAN TAKE.

Individuals: Quite often in a change environment we mistake people's reaction to the situation they find themselves in for intransigence or resistance. The situation that people can find themselves in can alter their perception of the change, their perception of the subjective norm and their perception of their capability and capacity to make the change. We often see this in information technology implementations, where what appears to be people's resistance to using a new system is a mismatch between the new system and existing processes that the new system takes data from or provides data and information to. In one organisation, which set out to make a major transformation of its billing systems, using what would have been then seen as a radical project management process, given that it was in the early days of agile, they used very short development and approval times for small pieces of work but did not put in place a sufficiently robust testing program to identify and root out system errors and/or process mismatches before going live and treating the system is business as usual. The result was a large blowout in credit which was blamed on users' resistance, which was in fact, the result of an unworkable system, not a people problem.

ABOUT THE AUTHOR

KEVIN DWYER, Director, Change Factory is a Change Management professional with more than 30 years' experience in the planning, design and delivery of change management programs. Since 2001, and the establishment of Change Factory, he has been involved in many Change Management projects ranging from re-engineering of customs processes to reduce risk to creating and revising performance management systems to improve customer service outcomes at five-star resorts. His first eDRMS project was as the Change Management partner for the REX project which was awarded the J.Eddis Linton Award for Excellence – Most outstanding group in 2010.
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At a simpler level, we often make it more complicated for people to adopt new behaviours and actions then we should. I have often heard the phrase, "we hire smart people" as a reason for not making a little more effort in making it easier for people to execute the actions we require. The simpler and easier we can make it for people to execute actions we require the easier it will be for them to perceive the change is good thing, the easier it will be for them perceive that this should be the subjective norm and the easier it is for them to perceive that they will have the capability and capacity to execute the new behaviours and actions.

Line Managers: We can make the path easier for line managers by giving them templates processes and methods for planning and implementing. We can make it easy to book training, or for getting extra resources when they must take key staff of their day-to-day role to allow them to participate in project teams and project meetings or to make decisions or to answer questions from their staff. Shaping the path for line managers and showing them that we will shape the path for them also makes it easier for them to believe that this change is going different and to care enough to prioritise it over their other activities associated with their role.

Managing resistance to change is not about generic processes, feel-good social functions, punishment and rewards or command and control. It is about understanding how people will view the change logically and emotionally and in trying to influence that and understand what help they need to make the execution of the changes in behaviours and actions easy to do.

This article first appeared at: www.changefactory.com.au

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Qld Chapter Celebrates 21 Years at Symposium

Nino Borka , Louise Thomson ., Anne Cornish , Nancy Taia, Meryl Bourke
John van der Zant , Josephine Marsh , Amanda Day , Brendan Felstead

Brendan Felstead,
Megan Cappelleri and Chris Simpson

Records and information management professionals crossed borders to make new connections with over 50 delegates from Queensland and Northern NSW, gathering for a two-day symposium in November.

Held at Peppers at Salt Resort and Spa in Kingscliff, delegates were exposed to engaging and interactive presentations covering topics about collaboration, management skills, creating connections, aligning business outcomes with governance and the implications of digital technology on the industry.

The symposium commenced with insights from some of the Chapter's founders in a personal and insightful segment called This is Your Life.

During the 21st birthday celebrations, long-standing members, Megan Cappelleri, Gunta Bajars and Janine Morris were presented with status upgrades to Chartered membership.

Chapter founder, Chris Simpson also presented the QLD Excellence Award to Megan Cappelleri (Mentoring) and Gabrielle Ingram (Contribution) for implementing outstanding initiatives and leading services on a prominent scale.

South Australia Branch State Seminar Event Wrap Up

The South Australian Branch hosted a full-day seminar at Hotel Grand Chancellor in October. The seminar was attended by 48 participants along with RIMPA staff members Jo Kane and Tynelle Spinner.

To accommodate the many delegates in attendance, lunch and afternoon tea were served outdoors and nearby the hotel pool. A great way to boost Vitamin D and enjoy the warm weather while catching up with colleagues over delicious German-themed food.

Presentations followed themes covering digital transformation, privacy, data capture and storage. To highlight the many types and purposes of Apps and our increasing reliance on them, Chris Foley presented his inForum 2018 presentation,There's an App for that: Recordkeeping in the Age of Web 3.0. Damian Martina from Brolly provided an interesting presentation on the importance of archiving social media and Alyssa Blackburn (AvePoint) offered insights about using Office 365 as a records management system.

Other speakers included Dino Incampo from Iron Mountain who discussed digital transformation and Daniel Dawson from FYB who asked the question: Who is guarding your information?

Dee Harding from the Australian Digital Health Agency gave an interesting and informative overview about how My Health Record, the Australian Government's health information sharing initiative, will work.

Marcus Devine from Webvine provided the final presentation and delivered insights into the nine pillars that underpin successful digital transformation. Marcus concluded the session by discussing his company's new learning bot "Jackson" which left the audience fascinated with the capability of technology.

RIMPA would like to thank its generous sponsors AvePoint, Recall and FYB for providing trade displays and representatives at the seminar. We particularly extend our gratitude to both our sponsors and speakers for travelling to South Australia to participate in the event.

profile

INTERVIEW WITH

Joy Siller

M.Bus (Marketing) B.A. (Lib. Sc.) ARIM (Life)

It seems Joy Siller coined the idiom "turn your hand to something".

Joy joined RIMPA's NSW Branch in 1993.

During Joy's time with RIMPA, she has worn many hats including acting as the editor of the NSW Branch Newsletter and the NSW Branch Events Coordinator, developing RIMPA's first strategic marketing plan, and working on the 2000 convention in Sydney. Then there's the time Joy emceed the 2008 convention and her stint as a Federal Board Member.

Congratulations on your distinguished career and new Life Membership status. What have been the highlights of your association with RIMPA?

The friends and colleagues that I've met along the way, a shared sense of purpose, and the opportunity to discuss and develop practical and theoretical ideas and opportunities to progress this profession.

I've been most grateful to have presented many papers at the Association's conventions and other events, and to be published in *iQ*.

You are Managing Director of Siller Systems Administration, tell us about your management style?

I'd like to think my style is democratic and consultative, but I'm sure some would also see an element of 'control freak'. In recent years, however, I've taken a great leap forward with delegation! I can rely on our very capable staff without hesitation.

What were your responsibilities in your role as a Federal Board Member?

Marketing Coordinator is probably the most memorable. As a new role at the time, it gave me the opportunity to create a potential direction for the Association.

The field is always changing, share any industry developments you find to be important.

Managing business information is an integrated and continuous process within organisations. Practitioners within our field must be able to take a wholistic approach and be ever-aware of technological developments.

The challenge is to see how we can best use new technology while taking a pragmatic approach. It's easy to be swept away with over-promised solutions so a questioning and practical eye is key.

I think it's exciting that some in this field are starting to be included in discussions concerning business systems that are outside the realm of the traditional 'records management' area, but there's still a long way to go.

What excites you about the future direction of the profession?

As technological solutions for information management become common-place throughout society, the knowledge and skills of practitioners in our field are invaluable.

There should be increasing opportunities to use our knowledge and skills if we can position and promote them properly. From what I've seen of the new generation information manager, they have the confidence and ability to do just that so let's get them to the forefront of the Association.

Anything to add?

As the profession moves forward, it will be important to objectively determine what is best for this field. The profession needs to be sufficiently mature to learn from past mistakes and identify realistic opportunities for advancement.

Thank you, Joy.

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