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RPA and Cloud energise Global Capture Market

Industry analysts Harvey Spencer Associates (HSA) has released its 16th annual survey of the Worldwide Capture Software market, which showed an increase of 15.4% to $US4.7B in 2018. The increase was driven by the growth in Robotic Process Automation (RPA); a move to Cloud Services and an increasing need to understand and extract data from unstructured inputs at the time of impact.

Artificial Intelligence (AI) based classification and extraction has started to make an impact on the market. HSA forecasts a further increase to 19.5% in 2019.

RPA, which has attracted a lot of interest from investors, has been one catalyst for a broader interest in Capture Technologies. Based on a capability to eliminate keystrokes and mouse movement, RPA is evolving into traditional forms processing capture with integration into business processes.

"This is the same trajectory as document capture took several years ago" observed Harvey Spencer.

The move towards value from 'post-process' to higher value 'pre-process' capture has been quite noticeable, with Case Management reported as "the reason to capture" increasing to be worth over $US1.5B. In contrast, revenue from Batch based back office capture, previously the largest area, decreased by -3.8% – the first decline seen by HSA in this segment.

Mobile based capture, driven by wider bandwidth and improved mobile phone cameras increased by more than 40% to account for nearly $US500M of revenue.

"It is now clear that we are seeing an inflection point in the market with increasing numbers of Capture 2.0 solutions. The reduction in batch back office capture combined with the increases in Mobile and Case Management demonstrates the need to understand incoming unstructured information as quickly as possible in order to improve efficiency and for competitive reasons.

"Records Management as a primary driver for Capture is becoming less important. The need is to truncate the information as fast as possible. The market is broadening as we also saw a substantial increase in revenues from developing countries, which we think is driven by the availability of smart phones and broadband" said Spencer.

HSA estimates the total market opportunity for Capture 2.0 Services at $US34B worldwide. Transformation to containerized Capture 2.0 services will have a far-reaching impact – resulting in double digit growth opportunities for vendors.

Mastercard introduces B2B Payments Platform

Mastercard has announced it is launching a new global trade platform on Azure in collaboration with Microsoft, Mastercard Track, that promises to streamline and automate the procure-to-pay process. Initially, Mastercard is partnering with nine B2B networks and procure-to-pay solution providers – Basware, BirchStreet, Coupa, the Infor GT Nexus Commerce Network, Ivalua, Jaggaer, Liaison Technologies, Tradeshift and Tungsten Network – to roll out Track's identity, compliance and payment management capabilities to buyers and suppliers.

Mastercard initially launched Track in 2018 as a trade platform to address identity, compliance and payment management needs. The Mastercard Track Business Payment Service will be rolled out globally, starting with the US market in the first half of 2020.

Organizations will be able to maintain, retrieve and exchange key information relating to themselves and their trading partners through the Track Trade Directory, a secure, permissioned repository of over 150 million company registrations worldwide. This central directory will integrate feeds from more than 4,500 compliance lists into one place, making the screening and onboarding of suppliers more efficient.

As the platform expands, suppliers will have better visibility into cashflow – when they can expect to get paid and for how much – across multiple networks. Track will help connect all types of payments – account-based, card-based or bank transfer – within the platform, while also connecting purchase order and invoice information.

For more information visit mastercard.com/track.

The Ethics of Automation

The Australian government is handing over $A32M to a new research centre hosted at RMIT University that will investigate how rapidly emerging autonomous decision-making technologies can be used safely and ethically.

The Australian Research Council (ARC) Centre of Excellence for Automated Decision-Making and Society will bring together national and international experts from the humanities, and the social and technological sciences.

Australian Minister for Education, Dan Tehan, said automated decision-making technology was being used in self-driving cars or algorithms that were used to make medical diagnosis and business decisions.

"This technology has great potential to transform the efficiency of industry, as well as public and private services, however, as with all technology, it is prudent to explore how to mitigate any possible risks," he said.

RMIT Professor Julian Thomas, who will lead the centre, said, "From artificial intelligence to the blockchain and big data, automated systems are changing our everyday life," he said.

"New systems offer enormous benefits in many areas but they also pose substantial risks to our privacy and security, and to our welfare as citizens and consumers.

"We urgently need a much deeper understanding of the potential risks of the new technologies, and the best strat-egies for mitigating these risks."

Garter predicts Collaboration boom

The worldwide market for social software and collaboration in the workplace is expected to grow from an estimated $US2.7 billion in 2018 to $US4.8 billion by 2023, nearly doubling in size, according to Gartner, Inc.

"The collaboration market is the most fragmented and contextually focused it has ever been, making the barrier to entry extremely low," said Craig Roth, research vice president at Gartner.

"By 2023, we expect nearly 60% of enterprise application

software providers will have included some form of social software and collaboration functionalities in their software product portfolios."

The collaboration market has fragmented into many submarkets – for instance, employee communications applications or meeting solutions – that often do not compete.

"The market is not yet a winner-takes-all space, creating opportunities for innovation that will expand the size of each submarket," said Mr. Roth.

"The future of social software and collaboration will leverage new capabilities like social analytics, virtual personal assistants (VPAs) and smart machines."

Social media and real-time messaging are now key to enterprise collaboration, according to the recent Gartner Digital Worker Survey. Fifty-eight percent of respondents reported using realtime mobile messaging tools daily, and 45% reported using social media networks daily.

"Digital workers turn to tools that are common in their personal lives to get work done. Real-time mobile messaging is quite common in support of enterprise endeavours, as are social media and file sharing tools," said Mr. Roth. "The use of such tools effectively blends workers' personal experiences and their work experiences."

Healthcare preserves paper - for now

Paper is turning out to be a worthy enemy of the digital transformation – at least in the healthcare industry. A new report from McKinsey & Company recommends a strategy that makes the paper process more efficient and slots it into a larger digital strategy.

The report, *Best-in-class digital document processing: A payer perspective*, concludes the multiple players in this sector have too much invested in the paper form process to make the move to a completely digital world.

According to McKinsey, paper-based processes endure due to:

■ General organizational rigidity

■ Risk-averse decision making

■ Employees' fear of job losses

To do away with paper forms once and for all, health insurance companies have to transform their internal business processes, and then convince industry partners to modernize their own systems. That includes partners, vendors, doctors, government agencies, and consumers. Many of these organizations avoid this comprehensive transformation because of significant switching costs, among other barriers.

McKinsey outlines four phases for this kind of transformation:

■ Pick a vendor and assess the need for process redesign

■ Select a dedicated IT team to manage a proof of concept project and then build the tech infrastructure

■ Create a digital factory to build new IT tools and processes that will reshape the day-to-day workflow in all departments

■ Establish a dedicated change management effort to help employees transition to the new system

Flaws found in PDF encryption

A team of German academics have alerted the world to new research that they claim demonstrates "severe weaknesses" in PDF encryption.

They have identified two methods that can break the confidentiality of encrypted PDF files, dubbed 'PDFex' (PDF exfiltration).

After testing 27 of the top PDF viewers using PDF version 1.4, the researchers found all were vulnerable to at least one of the attacks including Adobe Acrobat, Nuance Power PDF, Microsoft Edge and Internet Explorer, Chrome and Firefox.

The vulnerability they found allows an attacker to extract content from encrypted PDFs without knowing the encryption keys or the corresponding password.

PDF encryption is widely used in corporate, legal and health records management. It is embedded in scanner products from companies such as Canon and Samsung.

IBM offers "PDF encryption services for PDF documents and other data (e.g., confidential images) by wrapping them into PDF."

The researchers have shared more information about their findings on a dedicated Web site.

https://pdf-insecurity.org

Oil Industry's $100B Bonus

As much as $100 billion can be saved by the global oil and gas industry through automation and digitalization initiatives in the 2020s, according to a new study from research firm Rystad Energy.

In 2018, $1 trillion was spent on operational expenditures, wells, facilities and subsea capital expenditures across more than 3,000 companies in the upstream space.

"Many key industry players are setting optimistic goals, but the realization of these initiatives largely depends on how freely data is shared amongst companies and how commercial strategies are deployed to drive this development.

Because of this, it could be years before we see full adoption. However, based on our analysis of 2018 capital spend and operational budgets, we believe savings could easily reach $100 billion," says Audun Martinsen, head of oilfield services research.

A driver of digitalization is that data storage and processing have become significantly cheaper, and the increased connectivity through the "Internet of Things" has allowed more data to be efficiently digested.

Nonetheless, the digital systems of an offshore platform can have around 5,000 to 15,000 sensors, and connecting this myriad of data points is not a straightforward process.

Given the complexity of digitalization efforts, it is likely that investments will be primarily aimed at new greenfield projects, while aging producing assets will not be a priority

Vic TAFEs fail Process Review

An Audit Victoria review of Enrolment Processes at Technical and Further Education Institutes has highlighted limited uptake of document automation with duplicative information collection, and manual processing still common.

The audit was undertaken to examine the efficiency of enrolment processes for government-subsidised training at four Technical and Further Education Institutes (TAFEs) and one dual sector university: Box Hill Institute; Melbourne Polytechnic; Sunraysia Institute of TAFE; William Angliss Institute of TAFE; and Swinburne University of Technology. This audit used process mining software to examine prospective students' pathways through the enrolment process at four of the five audited TAFEs.

It found that three institutions, Melbourne Polytechnic, SuniTAFE and William Angliss, still rely on manual processes to enrol students, which are inefficient and costly. In some cases, these TAFEs require prospective students to visit campus on one or more occasions to finalise their enrolment, which can be inconvenient for students and burdensome for staff.

Melbourne Polytechnic, SuniTAFE and William Angliss mostly use paper based and some electronic forms to capture critical enrolment-related information. In contrast with Swinburne and Box Hill, these electronic forms do not automatically feed into the TAFEs' information management systems. Admissions staff must manually copy the information into the relevant SMS field. This double handling often occurs after the individual has finalised their enrolment, which may delay TAFEs' access to consolidated data.

SuniTAFE and Melbourne Polytechnic use additional staff resources to manage the manual activity in their processes. SuniTAFE has previously hired a temporary admissions officer to scan enrolment-related documents for storage, while Melbourne Polytechnic contracts a third-party records management company for the same purpose. These resources put a financial burden on SuniTAFE and Melbourne Polytechnic, which may divert funds from other initiatives. In contrast, Box Hill and Swinburne have an online enrolment process, while providing on-campus help to those who need it.

All TAFEs use a combination of third-party software programs to capture information about prospective students. TAFEs use a customer relationship management (CRM) system to communicate with individuals when they enquire about training, and a student management system (SMS) to collect and administer information about key enrolment steps.

The report concludes that All TAFEs face similar challenges to integrate their information management systems and move more enrolment steps online.

Seven Pivots for Digital Transformation Success

By Gary Audin

Digital transformation can lead to more revenue, higher profits, increased market share, and improved efficiency. It also can help an organization keep loyal customers, increase customer satisfaction, and rapidly resolve problems. Do not expect that this is only an IT effort although IT and the network are integral to the digital transformation success.

Digital Maturity

I was reading *"Pivoting to digital maturity; Seven capabilities central to digital transformation"*. The report identifies 7 pivots, capabilities that when developed contribute towards a business successfully bringing about positive growth through digital transformation.

The report covers a survey from November 2018 consisting of 1,200 US based executives. They were knowledgeable of their organization's digital transformation efforts. The organizations surveyed employed at least 500 people and had global revenue of $US250 million.

Digital maturity is attained when organizations systematically and broadly execute the digital pivots. Digital maturity comes when the assets and capabilities are implemented and adopted. The adoption creates a condition where the organization will experience significant positive business impact.

Lower-maturity organizations usually take a narrow view of digital transformation. They may decide that supporting omnichannel customer interaction or adding robotic process automation for call centres is enough. Higher maturity organizations take a broader view across the whole organization and do not limit their horizons.

Three Top Digital Pivots

There are seven pivots for digital transformation success. Three are foundational.

The first is a flexible and secure infrastructure. The design of the infrastructure needs to balance security and privacy with the ability to respond to business changes as well as agilely support new capabilities. This includes cloud infrastructure, agile/DevOps methodologies implementing technology platforms instead of ad hoc applications, and deploying a cybersecurity strategy.

You need to look at digital transformation as a totality, not as set applications. A platform is a reusable collection of assets and capabilities working together to make it easier to produce a product or deliver a service.

IT should be the leader of this pivot and pursue it with an evangelical spirit and wide organization adoption. The report found that 60+ percent of higher-maturity organizations had implemented this pivot in at least five functions. About 15 percent of lower maturity organizations adopted this pivot.

The second is data mastery which involves data usage and analytics to discover insights that help improve efficiency and pursue new business opportunities. Data mastery is not just constructing data lakes. It is also about structured and unstructured data. This is where artificial intelligence (AI) surfaces in organizational processes that enable decisions at the enterprise edge.

Data mastery value allows the organization to make micro insights widely available. The chief data officer should identify and evaluate data assets and build or acquire (with IT support) the necessary platforms and competencies.

Eighty-eight percent of higher-maturity companies reported that they obtained a positive impact from their use of data, compared to lower maturity organizations at just 24 percent. IT is the driver of this pivot as well.

The third is talent. Many consider talent as the most important operational and cultural challenge organizations face is finding, training, and retaining the right talent. This reminds me of the gap in cybersecurity experts. There are more jobs than people to fill them.

To reduce this gap, organizations have to retool training programs to focus on digital competencies.

Higher-maturity organizations are about five times more likely to strongly agree that their organization excels at assisting employees develop

digital skills. Human Resources is the key in architecting this pivot using incentives and rewards to guide talent to behave more like the staff at digital native organizations.

The Other Four Pivots

There are four more pivots for digital transformation. Although these are not as foundational, they cannot be diminished or ignored.

■ The ecosystem engagement pivot is defined as working with external partners. This can include startups, R&D organizations, and other groups that are technology incubators. This is important to gain access to resources such as people to help obtain talent, intellectual property, as well as new technologies.

■ Intelligent workflows consists of balancing people, processes, and technology capabilities that can produce positive results. Done properly, intelligent workflows can release talent and resources for higher value projects.

■ Unified customer experience deals with delivering a 360 degree customer view that is available to the entire organization. This includes digital and human interactions that produce an enjoyable and satisfying experience.

■ Business model adaptability means that an organization has more than one business model and has an optimized revenue stream that can positively respond business and market changes.

Get the Pivots Right

There will be many challenges. One barrier can be the existing business model even if it has been successful.
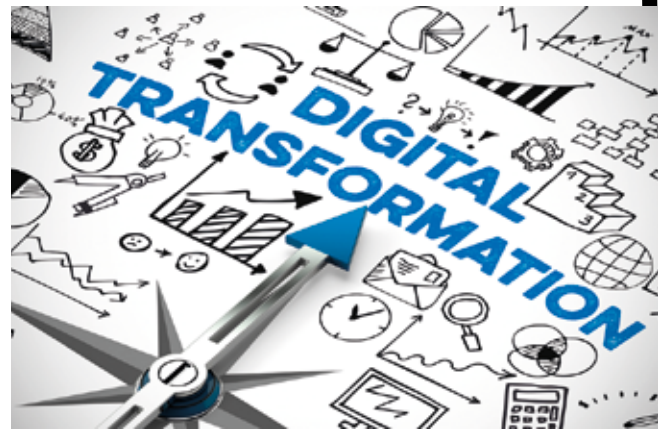
Executing the pivots requires cross-functional coordination and shared asset use that may not be supported. The report found that a poorly suited operating model/structure was the most common challenge.

Other factors to limited success are leadership support, budgets, and lack of focus. There are also the problems with acquiring and developing talent.

About 40 percent of the survey respondents reported "upgrading legacy systems/processes" as one of the top-three challenges to digital transformation. This is no surprise. Digital transformation projects amplify these issues when executing pivots such as intelligent workflows and unified customer experience.

Gary Audin is an IT consultant with 40 years experience, consultant, blogger, author, and seminar presenter

Kodak Alaris INfuse puts scanning front and centre

Kodak Alaris is launching a new wave of network-connected scanning solutions aimed at tackling the most difficult pain points organizations face when onboarding information into line-of-business applications.

The Alaris INfuse Smart Connected Scanning Solution and the Kodak Scan Station 730EX Plus Scanner automate business processes by seamlessly connecting document capture to existing business systems and the cloud. Benefits include fewer touchpoints and less human error, making the entire information capture process smarter and more efficient.

The Alaris INfuse Solution integrates directly with enterprise applications and enables customers to carry out tasks in hours which, in the past, may have taken days to complete. INfuse also offers an opportunity for channel partners to engage with customers to streamline expensive business processes.

The inspiration for INfuse comes directly from channel partner and end user feedback. Solution providers need cost-effective ways to install and manage a fleet of devices while helping enterprise customers efficiently and correctly onboard information into business processes.

To address these needs, the Alaris INfuse Solution includes three key components:

■ Partner Software Application – An Alaris channel partner or solution provider (typically an ISV or Integrator) provides a cloud-based enterprise solution such as invoice processing, medical records management, or customer account management. The partner's software or line-of-business application integrates with Alaris APIs.

■ INfuse Management Software provides easy end-user set-up, remote configuration and fleet management through a bi-directional API provided by Alaris. End users simply scan a smart set-up sheet provided by the partner and they are up and running with no training required, which slashes upfront and ongoing management costs.

■ INfuse AX Scanner – A smart network scanning device requiring no PC or software/drivers that accurately and securely transfers data, metadata and finished image files directly into a business process. INfuse offers enterprise-level security, including a separate data path and control path to isolate confidential content for secure transmission. The INfuse AX Scanner can be configured to carry the partner's branding on its display.

The INfuse Solution seamlessly connects to the Alaris partner's business process and enables end users to onboard content directly into that workflow.

When a scan is successfully transmitted and form fields are validated, the end user receives realtime acknowledgement and immediate exception notifications. This means missing forms, signatures, and other critical information can be detected and corrected instantly, saving money and improving employee productivity.

"Exception handling and the opportunity for immediate corrective action is critical," said Don Lofstrom, President & General Manager, Alaris, a Kodak Alaris business.

Alaris INfuse AX Scanner

"Reconstructing and re-scanning documents is difficult and costly. Bi-directional communication enabled by Alaris APIs is a game changer. It places INfuse in a category by itself – a smart, connected scanning solution with IoT capabilities for today's information capture market."

Also new from Alaris is the Kodak Scan Station 730EX Plus Scanner. The Scan Station 730EX Plus is an integrated network scanner that securely automates document capture and allows for fully finished files to be scanned directly into business processes.

Like INfuse, the Scan Station is a network-connected solution that sits at the edge of workflows and operates in a wide range of customer environments. It offers embedded Windows 10 IOT Enterprise Operating System and network domain authentication for secure log-in.

The new Scan Station is ideal for capture and advanced processing such as OCR, all done in the scanner. It is specifically designed for integrators to create custom solutions. "Partner applications can be loaded on the scanner, extending the capture solution to address the unique needs of the partner and end user. The Scan Station is well-suited for customer-facing environments where MFPs, peripheral scanners and PCs don't make operational or financial sense.

Real world benefits of edge capture

Onboarding content is most efficiently done "at the edge" of an organization, in distributed locations and at the first possible touch point. Until now, the added cost of host PCs, provisioning and ongoing support has made edge capture cost prohibitive for many organizations and partners. As a solution provider, it's difficult, complex and costly to install and remotely manage hundreds or thousands of scanners at customer sites.

The latest wave of network-connected solutions from Alaris offer simplified remote installation, device management and updating. The Alaris INfuse Smart Connected Scanning Solution and the Scan Station 730EX Plus Scanner can be deployed in a wide range of industries and applications including BPOs, service bureaus, healthcare, retail invoicing, insurance records, human resources, legal, tax consulting, and general office environments.

https://www.alarisworld.com

NAB gets into Google Cloud

National Australia Bank (NAB) has added Google Cloud to its cloud technology strategy that already includes Microsoft Azure and Amazon Web Services. NAB aims to move 35 per cent of its applications to the cloud by the end of 2020.

NAB Chief Technology and Operations Officer Patrick Wright said Google Cloud brought great capabilities and innovations, particularly in data analytics, machine learning and container management, as well as an alignment with the bank's multi-cloud strategy.

"One of the benefits of a multi-cloud approach is the ability to move workloads across platforms and integrate different tools and capabilities.

"We're designing our most critical applications to be portable between cloud partners to avoid concentration risk which is an important regulatory and risk consideration.

"We also want to tap into the advanced capabilities of the world's best cloud providers to improve customer experience."

Since embarking on its cloud strategy, the bank has now moved more than 400 applications to the cloud, while also reducing its overall number of applications by eight per cent.

Whittlesea Deploys Nintex Promapp

The City of Whittlesea council in northern Melbourne has commenced deployment of Nintex Promapp throughout its council operations. Promapp will provide the council with a cloud-based solution to support the multifaceted demands of the organisation and enable it to capture and manage processes. The visual process mapping and management capabilities will also facilitate a culture of continuous improvement by prioritising process ownership and accountability among employees.

City of Whittlesea recently established a customer experience team. One of the key enablers of this strategy is to roll out Salesforce to integrate the council's legacy systems and create a single source of information, supporting the delivery of improved customer experiences.

Initially, the process mapping and management solution will be deployed to enable the council to easily map its existing processes, before creating and capturing to-be processes which the IT team will use to build flows within Salesforce. In addition, Nintex Promapp will support the council's requirements to identify areas for improvement, quantify the impact of the changes, and enable the council to improve and standardise the way it documents processes and protocols across its resident and business customer-facing teams.

How to Revitalize a Stalled Digital Transformation

By Susan Moore, Gartner, Inc.

A large telecommunications company is under pressure to digitalize its services and business processes, but initiatives keep stalling. The main problem sits with five of its business leaders, each with the belief that they're primarily accountable for the transformation, and each with a different view of how it should be accomplished.

"Digital transformation won't succeed without a common understanding and a clear vision across the organization," says Neil Osmond, Distinguished VP Analyst, Gartner.

"When people think about digital transformation, they tend to emphasize technologies such as artificial intelligence (AI), chatbots or automation, as these are the most visible attributes."

"But technology issues are usually the easier things to work through. The non-technological aspects, if not addressed, can mask the depth of organizational transformation required and become serious inhibitors."

Osmond cites a lack of clear digital vision, an overemphasis on technology and a passive resistance to change as the most common issues.

Establish a clear digital vision

Without a shared vision, digital transformation will stall. Only a vision that's meaningful and easy to understand is actionable. Compare the following two examples:

"We will digitalize our systems and processes to enable brilliant customer experiences and simplify our ways of working." This statement, while succinct, is generic and ambiguous, making it difficult for people to buy into and act on.

"We are changing from selling equipment to selling recommended actions and insights to better serve our customers' needs." This second example of a digital vision is better, because it uses a "from-to" descriptive metaphor to explain the intent and rationale.

True digital transformation involves optimizing your current business (improved productivity and products, better customer experience) to get "digitally fit," and also transforming it (new business — products, services or models). What's your organization's intent?

Ensure the transformation is business-driven

Digital transformation must be focused on business priorities like revenue growth, customer satisfaction or operational efficiency to be truly transformative. It must also encompass people and processes.

"Resist jumping straight to solving technology-related issues," Osmond says. "If you do, your initiative will rapidly turn into a lengthy IT modernization project that doesn't address key elements of your operating model, such as

processes and ways of working."

Instead, start by clearly understanding what the business outcome is and centre initiatives on business priorities.

Address passive resistance

Employees might hear your transformation message and vision — and may even think it's great — but then go back to their daily tasks. In their minds, change can equal risk, which can lead to inertia, and ultimately failure.

"The number of times that change is mentioned every day can lead to transformation fatigue," Osmond says. "People come to work to deliver, not to change. If you're forcing change on them, it can be really tiresome."

Spend time with your employees and build a storyline that helps them connect emotionally with the desired future. Create a path they trust. Talk about what won't change. That gives people surety and confidence.

Fraser Coast goes SaaS

TechnologyOne has signed a new multi-year, $A1.2 million agreement with Queensland's Fraser Coast Regional Council, which will implement its OneCouncil SaaS solution. Fraser Coast will replace a number of on-premise legacy software applications including asset management, payroll and electronic document management with TechnologyOne's integrated cloud-based solution, helping to reduce costs and improve efficiencies.

"We have a long-term relationship with Fraser Coast Council who have been using our Financials and Property & Rating product for more than 15 years, so we're very pleased to see the partnership evolve to SaaS," said Stuart MacDonald, TechnologyOne's Chief Operating Officer.

"Fraser Coast joins more than 330 local governments in Australia and New Zealand, including the Whitsundays and Cairns, that are embracing our SaaS solution to securely empower their digital transformation.

THE TURING TEST

WHY IT STILL MATTERS

By Harry Collins, Cardiff University

We're entering the age of artificial intelligence. And as AI programs gets better and better at acting like humans, we will increasingly be faced with the question of whether there's really anything that special about our own intelligence, or if we are just machines of a different kind. Could everything we know and do one day be reproduced by a complicated enough computer program installed in a complicated enough robot?

In 1950, computer pioneer and wartime codebreaker Alan Turing made one of the most influential attempts to tackle this issue. In a landmark paper, he suggested that the vagueness could be taken out of the question of human and machine intelligence with a simple test. This "Turing Test" assesses the ability of a computer to mimic a human, as judged by another human who could not see the machine but could ask it written questions. In the last few years, several pieces of AI software have been described as having beaten the Turing Test. This has led some to argue that the test is too easy to be a useful judge of artificial intelligence. But I would argue that the Turing Test hasn't actually been passed at all. In fact, it won't be passed in the foreseeable future. But if one day a properly designed Turing Test is passed, it will give us cause to worry about our unique status.

The Turing Test is really a test of linguistic fluency. Properly understood, it can reveal the thing that is arguably most distinctive about humans: our different cultures. These give rise to enormous variations in belief and behaviour that aren't seen among animals or most machines. And the fact we can program this kind of variation into computers is what gives them the potential to mimic human abilities. In judging fluent mimicry, the Turing Test lets us look for the ability of computers to share in human culture by demonstrating their grasp of language in a social context.

Turing based his test on the "imitation game", a party game in which a man pretended to be a woman and a judge tried to guess who was who by asking the concealed players questions. In the Turing Test, the judge would try to guess who was a computer and who was a real human.

Unsurprisingly, in 1950, Turing didn't work out the necessary detailed protocol for us to judge today's AI software. For one thing, he suggested the test could be done in just five minutes. But he also didn't work out that the judge and the human player had to share a culture and that the computer would have to try to emulate it. That's led to lots of people claiming that the test has been passed and others claiming that the test is too easy or should include emulation of physical abilities.

First claimed pass

Some of this was made obvious nearly 50 years ago with the construction of the program known as ELIZA by computer scientist Joseph Weizenbaum. ELIZA was used to simulate a type of psychotherapist known as a Rogerian, or person-centred, therapist. Several patients who interacted with it thought it was real, leading to the earliest claim that the Turing Test had been passed.

But Weizenbaum was clear that ELIZA was, in effect, a joke. The setup didn't even follow what little protocol Turing did provide because patients didn't know they were looking out for fraud and there were no simultaneous responses from a real psychotherapist. Also, culture wasn't part of the test because Rogerian therapists say as little as possible. Any worthwhile Turing Test has to have the judge and the human player acting in as human-like a way as possible.

Given that this is a test of understanding text, computers need to be judged against the abilities of the top few percent of copy-editors. If the questions are right, they can indicate whether the computer has understood the material culture of the other participants.

Winograd schemas

The right kind of question could be based on the 1975 idea of "Winograd schemas", pairs of sentences that differ by just one or two words that require a knowledge of the world to understand. A test for AI based on these is known as a Winograd Schema Challenge and was first proposed in 2012 as an improvement on the Turing Test.

Consider the following sentence with two possible endings: "The trophy would not fit in the suitcase because it was too small/large." If the final word is "small", then "it" refers to the suitcase. If the final word is "large", then "it" refers to the trophy.

To understand this, you have to understand the cultural and practical world of trophies and suitcases. In English-speaking society, we use language in such a way that even though a small trophy doesn't exactly "fit" a large suitcase that's not what a normal English speaker would mean by "fit" in this context. That's why in normal English, if the final word is "small", "it" has to refer to the suitcase.

You also have to understand the physical world of trophies and suitcases as well as if you had actually handled them. So a Turing Test that took this kind of approach would make a test that included an assessment of an AI's ability to emulate a human's physical abilities redundant.

A higher bar

This means a Turing Test based on Winograd schemas is a much better way to assess a computer's linguistic and cultural fluency than a simple five-minute conversation. It also sets a much higher bar. All the computers in one such competition in 2016 failed miserably, and no competitors were entered from the large AI-based firms because they knew they would fail.

None of the claims that the Turing Test has already been passed mean anything if it is set up as a serious test of humanity's distinctive abilities to create and understand culture. With a proper protocol, the test is as demanding as it needs to be. Once more, Alan Turing got it right. And, as we stand, there is no obvious route to creating machines that can participate in human culture sufficiently deeply to pass the right kind of linguistic test.

Harry Collins is Professor of Social Science, Cardiff University. This article was originally published on The Conversation.

Four data quality steps you must take for AI success

By Melanie Turek, Frost & Sullivan

I'm going to go out on a limb and assume your organization is like most others when it comes to AI: you know what it is, you believe in its promise and you're eager to see what it can do for your business.

A recent Frost & Sullivan survey of 1,636 IT decision makers around the world confirms that assumption. We found that 63 percent of companies use AI and machine learning today, and 72 percent plan to up their investment over the next two years.*

There's just one problem — most companies won't achieve desired outcomes from AI if their data quality isn't, well, quality. And, chances are, it isn't.

Why AI craves good data

At its core, AI uses advanced algorithms and machine learning to better capture, process and act on information. Whether you're using it in the contact centre to improve customer and agent experience, on the production floor to optimize productivity and streamline your supply chain, or in the back office to speed decision making and drive innovation, AI needs good information, like our bodies need good calories, to operate at optimal levels.

Why most data quality is a hot mess

Most companies have had years, even decades, to develop a strong and secure data management system — for structured data. Now there are vast streams of unstructured data and terabytes of data that could be used by structured systems entering the organization from disparate sources like beacons, thermostats, smart cars and wearable tech.

Things get messy fast, and the mess grows exponentially nasty — a hoarder's dream, but a business nightmare. No wonder IT managers say the sheer volume of data is one of the biggest threats to their AI initiatives.

What you can do about it

There are four data quality steps you can take to increase your chances for AI success:

Treat structured and unstructured data equally. AI is most useful when it can analyse a wide range of information — including text, audio and video — from a wide range of sources. But it's also important to consider all the structured data coming into the enterprise, including inputs from sensors, beacons and the like.

Eliminate the noise. This is one of the hardest, and most critical, elements of a modern data management system: determining what information is valuable, and what is flotsam turned up in the tides.

Not all information is worth collecting, analysing or storing. Make sure the data you're gathering serves an identified and prioritized business purpose — and put in place metrics for measuring success.

Pay close attention to privacy and compliance. If your AI system is scooping up data from a range of public and proprietary sources, some of that information might be subject to specific rules and regulations that don't apply to the data you normally collect.

Ensure everyone and every system has access to the data it needs, when it needs it. Information can serve multiple purposes. For instance, knowing that a customer is unhappy with a product serves that specific CX interaction, but it can also feed into product development, channel strategies and more. Take advantage of the advanced analytics AI offers across the organization by surfacing relevant data wherever it makes sense.

How all this data plays out for most companies today

Let's take one scenario — using AI in the contact centre to improve outcomes — and see how it plays out.

One of the biggest frustrations for many customers is explaining the same problem over again, every time they switch channels. They go to your website for help and see nothing in the FAQ. They launch a chat session, then send a follow-up email and finally make a phone call. They expect, or desperately want, your agent and organization to know they took those actions.

Easy, right? Your modern contact centre software can offer an omnichannel experience that links all those interactions to the same customer for personalized service. Except, how does that system handle the email and phone call?

That data is unstructured. You need to tag it, classify it and contextualize it — in realtime, while the customer waits for an answer. That involves everything from basic translation and voice recognition to advanced analytics that can contextualise key words and phrases for the customer- and agent-side of the conversation.

Once that's done, the system needs to store the data for future use, and then figure out how to surface it for any advanced data mining you might do to continue to improve processes. And what if the customer reached out on Twitter or LinkedIn? What if the customer finally got exasperated and went to one of your physical stores to speak with a human? Chances are, those interactions are missed. (And, chances are, that customer is already lost to a competitor.)

Now consider the information your organisation captures from sensors and beacons — from smart badges to wearable tech, building systems to biofeedback. Even if much of that information is structured, it's often difficult to know where to put it and how to use it — not to mention where it fits in the overall security posture that requires stringent privacy and control over some (but not all!) information.

Exhausted? Overwhelmed? Absolutely. Fortunately, vendors are developing ways to handle this information overload, from vetting data at its source to applying algorithms that can improve Extract-Transform-Load (ETL) processes. But it's still incumbent on you, your company, to take the necessary steps — and invest in the necessary technology — to ensure your data quality is ready for AI, or don't bother.

Melanie Turek is Vice President, Research, Frost & Sullivan.

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INfuse Smart Connected Scanning Solution

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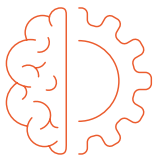
It's smart
- Scan one easy set-up sheet
- Access automated workflows
- No end-user training required
- Finished image files directly from scanner
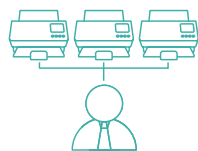
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Cognitive Software announces AI offering

The Cognitive Software Group, an Australian research and development company based in Sydney, has released an update to its cognitiveAI Platform, which utilises Semantic computing, NLP and Machine Learning.

This platform promises the ability to enrich the semantics of data collected from disparate data sources and enables a computer to understand its context and meaning. A computer can then undertake much of the heavy lifting usually performed by data analysts.

The company has developed a modular architecture for the cognitiveAI Platform to allow individuals and organisations the freedom to customise their own cognitive computing solution, built on or integrated with their existing systems.

The cognitiveAI Platform has two key Suites:

■ The Data Management Suite ingests data from multiple sources and stores the data as RDF Triples in a Semantic Graph database. The suite also manages the retrieval of this semantic data and automatically creates an ontology from the original data structure

■ the Knowledge Management Suite, is designed to develop, store and manage Ontologies "which stores a set of concepts and categories in a subject area or domain that shows their properties and the relations between them."

The Knowledge Management Suite allows users to safely prune unwanted concepts and axioms; validate existing, new or refined ontologies; and import, store and share these ontologies via the Library.

"The Knowledge Management Suite is an industry driven set of components closing the gap between theory and practice" said Dr Dzung Le, Cognitive Software's Chief Data Scientist.

This Knowledge Management Suite allows subject matter experts and organisations the opportunity to familiarise themselves with various ontologies and their concepts in order to achieve contextual data analysis. Through this suite, users will navigate their way through complex processes as well as allowing users to collaborate effectively with their peers.

The Cognitive Software team claims that knowledge management tools are scarce, and the tools currently available are very technical and counter-intuitive.

Publicly available ontologies exist in many fields of knowledge and can be utilised to generate context-driven queries, however these can be very large and extremely complex. In order for the greater population to adopt these technologies such as ontologies and RDF, Cognitive Software group experts say that intuitive, user-centric applications must be made available.

https://www.cognitivesoftware.com/
cognitive-ai-platform-as-a-service

Text Analytics for Business Users

Text analytics developer Luminoso has launched a new application called Daylight Express that is claimed to offer a fast and easy way to drive ROI on analysing unstructured text data, such as surveys, product reviews, and call centre transcripts. Daylight Express brings Luminoso's proprietary QuickLearn technology to both companies that are just getting started with customer experience analytics, as well as companies who are looking for alternatives to their existing text analytics tools.

"A few years ago, we launched Luminoso Daylight to offer companies the fastest way to uncover business-critical insights from their customer feedback datasets — an alternative to the current time, effort, and training data intensive approaches," said Ying Chen, chief product officer at Luminoso.

"Through our work on large-scale implementations of Luminoso Daylight with dozens of the world's most well-known brands, we saw an opportunity to help organizations that have a different scale of text analysis needs, or those looking to augment their existing solution to see more immediate value when analysing feedback data.

"Given the vast array of analysis choices in the marketplace, Express provides organizations the most critical tools focused on quickly finding digital problems, drivers of key metrics, and topics that hold the strongest sentiment."

Key benefits of Luminoso Daylight Express include:

■ Most text analytics platforms require training or coding, where programmers and data scientists are needed. Daylight Express doesn't need training, coding, libraries, or ontologies to fully analyse unstructured text data and quantify feedback, allowing users to start analysing customer feedback datasets immediately.

■ Users can simply upload customer feedback datasets related to a specific product, service, or brand, and immediately learn answers to a number of questions, such as "What issues are affecting the star rating of a company's product or service?" and "Which concepts in the feedback are most prevalent?"

Leveraging a knowledge base of more than 34 million relationships between words in multiple languages, QuickLearn provides Daylight Express with a common-sense understanding of the world and how people use language. This in turn enables Daylight Express to build a nuanced understanding of customer feedback datasets immediately, without needing any machine learning training on industry-specific terminology.

Pricing for Luminoso Daylight Express will start at $US1250/month. The product gives an overview of key insights, then provides drill-downs to explore themes, detect sentiment, examine clusters of conversations, and determine their impact driving key metrics.

luminoso.com/get-started-with-express.

Indium Software Launches 'teX.ai'

Indium Software, a niche technology solutions company, has launches its flagship product 'teX.ai' — an Ai based Text Analytics suite of solutions to offer data scraping, validation, classification, summarization, clustering, topic modelling and more.

One of the key aspects of digital transformation is digitization of legacy documents and analytics on the text content.

For example, investment bankers and financial analysts have to pore over several annual reports on a quarterly basis, where summarizing content and driving analysis can take considerable time and effort.

Similarly, Market research firms have a challenge establishing veracity of the metrics and KPIs in their reports. E-commerce players have classification and optimization problems with the same products across different catalogue categories.

All of these kinds of critical business challenges are prevalent across several industries and need NLP and Text Analytics as a solution.

For example, a legal organization can achieve the following using teX.ai:

■ • Highlight the keywords and phrases for each section of a document using Name Entity Recognition

■ • Identify the latent topic inside documents without reading them using Topic Modelling

■ • Make a succinct list of mandatory and optional clauses (dos and don'ts) using Clustering & ETL

■ Similarly, for an electronic media news website, teX.ai can help with:

■ • Automatic categorisation across sports, entertainment, politics using Classification

■ • Automatic text summary of TL;DR articles using Summarization

■ • Filtering out spam/abusive comments on the news items using Classification

Ram Sukumar, Co-founder and CEO, Indium Software, says, "Many of our existing clients are excited about teX.ai. There are several benefits businesses can avail, including, saving time and effort in summarizing documents, lowering costs by automating text extraction, reducing search complexity by classifying documents and thereby improving business efficiencies."

iridiumsoft.com

Microsoft taps in to TAIGER AI

TAIGER is making its suite of workplace AI solutions available on Azure, specifically Microsoft Marketplace and AppSource, in a global alliance with Microsoft.

"It's the best of both worlds coming together. The best of cloud services and the best of information processing and extraction software," said David Soo, TAIGER's Strategic Partnership Director.

"For enterprises where knowledge workers are crucial in processing information intensive applications, the time to process these applications will be greatly reduced with improved automation capability and become more cost efficient.

"This frees up resources for line of business owners and focus on other functions like customer experience and service enhancement

In the coming months, TAIGER's and Microsoft's teams will work closely together to drive further technology integration across Microsoft business applications as well as working across industry verticals to develop best practice on cloud-based information processing applications.

Gerald Leo, Director for One Commercial Partner and Small Medium Enterprises Group at Microsoft Singapore. Said, "We look forward to working with TAIGER to help customers in industries such as banking, insurance and government accelerate their AI adoption and realise the potential of AI in customer experience, risk management and more."

Anzo attacks Data Analytics

Cambridge Semantics has announced updates to its Anzo data discovery and integration platform. The most notable update to Anzo is enhanced treatment of unstructured data, which Cambridge Semantics dubs "unstructured data 2.0."

Anzo's workflow was rearchitected from an embedded to a distributed architecture, which provides better workflow and work process management.

This also enables Anzo to scale for larger data integrations at faster speeds, which is especially beneficial for very large, distributed companies, such as those Cambridge Semantics works within the life sciences, financial services, and manufacturing industries.

Anzo's user interface design was redesigned and optimized to simplify onboarding unstructured data, making it easier for business users to work with the platform.

"Our Anzo enhancements come at a time when the market for our technology is exploding," said Sean Martin, CTO and Co-founder, Cambridge Semantics.

"Graph models and unstructured data are becoming better understood and more readily adopted, and more of our customers now understand the value of diverse unstructured data and how to work with it.

"Anzo has always differentiated itself in the market by allowing customers to treat unstructured data as a first-class citizen and this latest version of Anzo raises the bar even further.

"We are committed to helping guide the industry with the best tools available to help organizations transform their data management and analytics operations."

The newest version of Anzo includes several additional updates, including improved automation in onboarding workflows, query builder enhancements, new administrative monitoring tools, and a beta version of Kubernetes-based GraphMart's cloud deployment powered by AnzoGraph DB.

http://www.cambridgesemantics.com

Is a mobile phone a computer? The Federal Court says no

By Lucy Cottier, Isobel O'Brien and Lesley Sutton, Gilbert + Tobin lawyers

The Federal Court of Australia recently found in *Luppino v Fisher* that a mobile phone should not be treated as a "computer" or a "data storage device". This had the effect of invalidating an earlier order made under s3LA of the Crimes Act 1914 (Cth) requiring the plaintiff to assist police to access data stored on a mobile phone, on the basis that the mobile phone was not a computer.

The Australian Federal Police (AFP) has appealed this finding, with the appeal to be heard at a date to be determined. The case concerned an order made in October 2018 under s3LA of the Crimes Act requiring the plaintiff in the case to provide to the AFP information (specifically, a password) to enable the AFP to access data held on a Samsung mobile phone.

Notwithstanding the October order, the plaintiff continued to refuse to provide the password to the AFP and commenced proceedings alleging that the order had been made erroneously.

Key issue

Section 3LA of the Crimes Act authorises the court to grant an order requiring a person to provide any information or assistance that is reasonable and necessary to allow police to access data held in, or accessible from, a computer or data storage device.

The order is able to be granted where, relevantly, the magistrate is satisfied that the computer or data storage device may hold relevant evidentiary material and the person in respect of whom the order is made has relevant information (in this case, the password) necessary to enable the police to access that evidentiary material.

The purpose of s3LA is to provide police with a means of overcoming impediments to accessing evidence that is held as electronic data where those impediments are created by the use of tools such as password protection and encryption.

The key issue considered by the court in Luppino v Fisher was whether the Samsung mobile phone in question was a "computer" or "data storage device" within the scope of s3LA. If it was not, then no order could be made.

Decision

Justice White was not satisfied that the Samsung mobile phone in question should be treated as a "computer" or "data storage device" for the purposes of s3LA.

No reference to "mobile phones"

When s3LA was introduced in 2001, the second reading speech referred to "computers", "hard drives" and "disks", without reference to mobile phones. Similarly, there was no mention of mobile phones in a 2010 amendment to expand the scope of s3LA to apply to "data storage devices". However, in 2001, mobile phones had relatively little computing ability and even in 2010 computing capability in mobile phones was not as sophisticated, nor as ubiquitous, as it is today.

Mobile phones are not computers

Notably, the Crimes Act itself does not define "computer". Given the repeated usage of the term "computer" in the Act, it is possible this omission was deliberate, to allow it to reflect changing understandings of the term as technology develops.

Ultimately, White J's conclusion rested predominantly on the assumption that if Parliament had intended mobile phones be covered by s3LA, they would have expressly included them in the provision. He acknowledged that mobile phones could be used for computing, however, he noted that the primary function of mobile phones is for communication, not computing, and that there was not sufficient evidence put forward to justify them being called a computer.

His Honour also noted that Parliament has specifically not chosen to use the term "electronic equipment" in s3LA, even though that terminology is used elsewhere (with a broader meaning) in the Act. For example, there are sections of the Act dealing with child abuse material, which refer separately to a computer, a data storage device and "another piece of electronic equipment".

Mobile phones are not "data storage devices"

The Crimes Act does include a definition for a "data storage device", which is defined to mean a thing containing, or designed to contain, data for use by a computer. "Data" is defined to include information in any form and any program (or part of a program).

Justice White noted that the concept of a "data storage device" was intended to include USB drives and external hard drives, DVDs, CDs and computer servers, as distinct from a computer itself. His Honour concluded that the term does not seem apt to encompass a mobile phone, and that there was nothing in the legislative history that suggested that the term was intended to encompass mobile phones. Whilst acknowledging that a mobile phone will contain data, His Honour did not consider that the requirement that the data be for "use by a computer" (as required by the definition of "data storage device") was satisfied.

What's next

His Honour compared mobile phones to other devices such as cars, televisions and refrigerators that may contain a computer but could not be said to be a computer. However, in the case of smart phones, and the variety of functions their computing capability allows them to be used for, this distinction seems very fine. It also seems very artificial to distinguish between standalone computers, and computers housed in other objects or devices such as hybrid laptops or tablets.

It is important to keep in mind that this decision is subject to appeal. However, given the universality of mobile phones and their importance to communication and information storage, as well as the emergence of more and more technology with similar computing ability, it is reasonable to expect that we will see Parliament step in to clarify this definition.

Bridging the Digital Risk Gap

IIT and risk management professionals must speak the same language to more effectively incorporate the benefits and uncertainties associated with data and technology into the organisations' overall strategy and to add value, according to a newly published, complimentary white paper from ISACA and RIMS.

Technology has long been integral to the success of any organisation, but as the range of business applications and the pace of innovation have increased, so has the risk. The *"Bridging the Digital Risk Gap"* white paper outlines how the changing digital risk landscape, new regulatory requirements, and greater understanding of commonalities between IT and risk management make a strong case for aligning the two in order to realise significant benefits.

Additionally, the report highlights ISACA's Risk IT Framework and how to integrate both IT and risk management frameworks that each department uses, such as the U.S. National Institute of Standards and Technology (NIST) Cybersecurity Framework into the technology life cycle.

"Because of expanding digital risk landscapes, risk management and cybersecurity capabilities are also evolving as a corresponding horizontal competency. Lack of, or poorly thought out, digital enterprise strategies can torpedo an organisation's mission and overall objectives." stated Carol Fox, RIMS VP of strategic initiatives and contributor.

"Likewise, failed implementations that do not deliver expected value to the organisation, whether due to scope creep, budget overages or unrealistic expectations can damage the viability of organisations, as much as security risks related to data breaches and expropriation of intellectual property."

"When enterprises examine the evolving risk environment and the benefits that can come from integrating risk management and IT, it becomes very clear that this collaboration is important to the overall business-risk portfolio," said Paul W. Phillips, III, CISA, CISM, technical research manager at ISACA and a contributing author to the white paper. "This kind of strategic coordination can bring many positive outcomes, including better incident response and improved information protection."

The report also includes RIMS' Enterprise IT Risk Management Responsibility Assignment Matrix that shows organisations how they can visualise the roles within the IT ecosystem and the cross-functional expertise required, as well as a map for ISACA's Risk IT Framework and the RIMS Maturity Model (RMM). The map emphasises the alignment between each domain in ISACA's Risk IT Framework and the seven attributes of the RMM.

"Collaboration between IT and risk management professionals facilitates strategic alignment of resources and promotes the creation of value across an enterprise. Understanding one another's world is the first step for building a constructive relationship," added Fox.

"In doing so, IT and risk management professionals can leverage their knowledge and resources to better inform decision makers on how business strategies and objectives can benefit from IT capabilities."

www.isaca.org/digital-risk-gap

Next Generation TWAIN

The TWAIN Working Group (TWG), a not-for-profit organization designed to provide and foster an open source, public standard for image acquisition devices and software applications, has made its first public release of its TWAIN Direct specifications.

TWAIN Direct is designed to provide application vendors with a simplified and universal approach to directly integrate and support any model document scanner via client or web-based application, regardless of its operating system.

TWAIN Direct eliminates the need for costly and time-consuming hardware regression testing and limited operating system support of vendor provided drivers and API.

The TWAIN Working group has created specification documents and sample code for multiple platforms to help expedite the development of applications accessing scanners via a local area network or via the cloud.

TWAIN Direct addresses the need for something simple, allowing developers to deliver a feature-rich end user experience regardless of equipment being used, by supporting direct network communications between the application and scanning device which can be operated via mobile or desktop application through a web browser.

Historically, application developers had to decide which Image Capture API to use (e.g., TWAIN, WIA, ISIS, SANE, ICA, etc.) in order to acquire images to an application.

This decision was primarily influenced by the hardware OEM's available APIs and customer's desired product, which presented challenges for developers as most APIs were limited to specific operating systems.

TWAIN Direct is a simple develop once, support all technology, and allows for true plug and play functionality, eliminating a complicated installation processes.

TWAIN Direct is also designed to support any TWAIN Direct enabled scanner or legacy TWAIN based USB device using the TWAIN Direct Bridge application or Side Car solution. These available options are designed to support existing TWAIN driver-based devices without having to purchase hardware to support the TWAIN Direct protocol.

TWAIN Direct is designed to minimize the coding requirements to integrate fully-featured image capture solutions within their applications. It also reduces development time from weeks to days, supports modern programming languages, and allows application developers full control of the actual user experience with a feature set best suited for their document management application.

Information and download of the TWAIN Direct specification and tools can be found at twaindirect. org

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The Modern Age Machine Gun for Successful and Enterprise-wide RPA

By Joe Rayfield

RPA or Robotic Process Automation is definitely a hot topic. The reason is obvious: process automation done correctly can dramatically reduce cost, while increasing both the speed and accuracy of process execution.

As demand and expectations skyrocket, RPA vendors and adopters alike are finding their initiatives unintentionally and often unnecessarily gated by two major factors:

• The time and effort required by the pre-RPA process discovery and benchmarking of the as-is state. How do we know what to automate next and why?

• The post-RPA requirement to quantify savings, monitor performance, control compliance, and an ability to advertise success and further scale automation throughout the enterprise.

Why are these two factors acting as the proverbial "ball and chain" of our automation efforts—because both are still typically run as highly manual efforts- and therefore are time consuming, costly, and open to error.

There simply is no reason for either of those activities to remain in the Medieval Times. Raising your Process IQ is critical for your organization across the board!

BOLD STATEMENT ALERT: Before I go on—Don't tell me you don't have the data—it is there—go and find it, and if you really don't have it—start creating it!! If you have serious ambitions of transforming your enterprise operations through RPA, Machine Learning and AI, utilizing Process Intelligence to understand your business process data will be absolutely critical in your organization's success.

How does a Process Intelligence Platform support RPA?

Firstly, Process Intelligence should be used during the pre-implementation analysis of existing processes to highlight the ideal candidates for an RPA both in terms of process efficiency goals and to define realistic Return on Investment expectations.

This increased Process IQ delivers 100% end to end process visibility through the creation of an interactive digital process twin, created in a fraction of the time of the historically manual process assessments.

Once a process twin has been created, Process Intelligence will easily allow your organization to quickly identify the bottlenecks in business processes—so you can see the areas where manual steps are causing compliance and audit challenges, rework and repeated steps.

These resource intensive, error-prone manual steps are prime candidates for an RPA implementation.

Essentially a Process Intelligence Platform should act as your RPA roadmap, identifying, prioritizing and justifying the right processes to attack—or as one of our customers calls it—"Evidence Based RPA Planning"

Post RPA-implementation

We all need to remember that whilst the discovery and analysis components of a Process Intelligence deployment can provide great value in a process assessment, it is hardly the final destination!

The ultimate goal is to improve them, whether this be achieved through staff training, process re-engineering or through automation. This is the area where a "True" Process Intelligence Platform can deliver unmatched functionality.

When you have chosen the right processes to automate using your desired RPA tool, Process Intelligence Platforms will continuously monitor the execution in near real time and immediately alert you when any of the violations or exceptions occur.

To be fair, some monitoring capabilities may already exist in BPM or RPA platforms; however, they will only work for the fragments of the business processes managed by those platforms and only for simple issues like time delay.

A Process Intelligence Platform watches over the entire process, from start to finish, as it crosses multiple systems and identifies even the most complex issues based on multiple types of prebuilt analysis.

Also, while general Business Intelligence tools can provide point in time metrics about the robot's performance, this falls woefully short of truly understanding the change that the robots are having on the entire process.

Process Intelligence can both monitor the performance of the Robots—but also the pre and post patterns that dictate overall compliance and effectiveness of the project.

Throw in both pre and post implementation cost-based analytics—and a proven ROI can immediately be constructed, tracked and internally advertised.

A further piece of the puzzle and potentially one of the most important ones is that Process Intelligence Platforms can not only alert people of process deviations, but they can also trigger Process Management or Robotic Process Automation platforms to remedy the identified issues automatically.

Just think about that—you may even achieve the Holy Grail of operational excellence—the closed loop integration where your process intelligence tool monitors your operational platforms, notifies it when a special condition occurs, triggers the remedy, then verifies the problem is actually solved. And if you throw in predictive capabilities for a future process state—creating an opportunity for interventional automation—now I am getting really excited (Someone cool me down)!!

If you still don't yet have a blue print for intelligent automation or your operational transformation in 2019 you still have time to plan. If your organization is prioritizing digital transformation and truly wants to accelerate their success—a Process Intelligence Platform is an absolutely critical piece of the puzzle.

Don't get left fighting with swords!

Joe Rayfield is Vice-President of Process Intelligence at ABBYY

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Mobile Capture
Captures content from document images and photos via tablets and smartphones for instant integration into organizations' business processes.
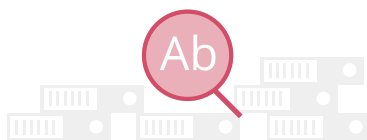
Document Archiving
Captures paper documents and converts them into searchable digital files that include metadata, and which are optimized for digital archiving and records management processes.

Accounts Payable Automation
Automated invoice processing can help make AP departments more productive, and offer significant potential for immediate savings and fast ROI.

Mailroom Automation
Replaces time and cost consuming manual work for input-management by digitising, sorting and intelligently routing all incoming mail in one smart software application.

Document Classification
Automatically identifies various types of documents based on their layout, text or images.

Forms Processing
Automates data extraction from paper forms (e.g. credit card applications, questionnaires, damage reports, etc.) to reduce manual processing costs.

- Reduce document and data related Costs — usually by 50%
- Accelerate Transactions

- Fast ROI — usually 3 to 6 months
- Increase Visibility and Control

- Optimisation of data quality
- Reduce Operational Costs

Finance Avoids RPA Reporting

Fewer than one-third of finance departments that have deployed robotic process automation (RPA) have utilized the technology for financial reporting according to a survey by Gartner, which also found that they could have saved 25,000 hours of avoidable work annually.

Gartner studied the use of RPA in finance departments through interviews with more than 150 corporate controllers, chief accounting officers (CAOs) and chief accounting leader.

The aim was to determine the main benefits of implementing RPA within the financial reporting process and along the way Gartner claims to have identified three key roadblocks that are currently hindering broader adoption.

"While 88% of corporate controllers expect to implement RPA by next year, we routinely encounter hesitancies when it comes to applying RPA to financial reporting processes," said Dennis Gannon, research vice president in the Gartner Finance practice.

"When viewed from a narrow ROI perspective, financial reporting appears to be a low priority compared with other business initiatives," Mr. Gannon said.

"The departments that have experimented with RPA in their reporting processes, however, report a series of additional benefits, from less staff time fixing mistakes and more time allocated to higher-value work.

@The result is typically higher employee engagement and less turnover."

Gartner's analysis based on survey responses with accounting and controllership leaders revealed three roadblocks finance leaders experience when consider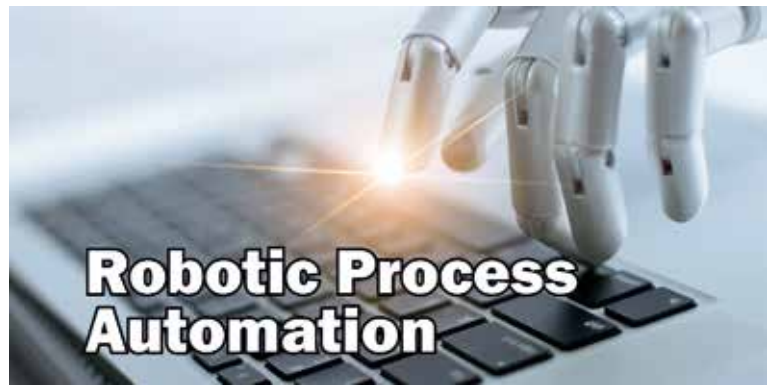ing implementing RPA: a hesitancy to remove human judgment from the process, perception of low ROI and process standardization delays before implementation.

Overcoming Hesitancy

RPA is best applied to manual, repetitive actions that a human would otherwise complete with a computer.

CAOs and corporate controllers have been hesitant to deploy RPA full-scale within the financial reporting process, relying on staff interaction points for steps deemed still beneficial from human judgment.

However, this approach limits the upside of RPA's benefits while still introducing human error and the need for rework.

"Maintaining unnecessary human interaction points indefinitely creates a ceiling on the benefits of RPA.

@CAOs and controllers we've seen overcome this roadblock have created tandem systems set for a limited period of time," said Mr. Gannon.

"This allows accounting leaders to test the performance of a fully automated process against the traditional manual approach and provides proof of the efficiency and accuracy of RPA, without the need for human intervention points."

Gartner research has found that the average amount of avoidable rework in accounting departments can take up to 30% of a full-time employee's overall time.

Ephesoft partners with Automation Anywhere

Ephesoft has signed a technology collaboration with Automation Anywhere, to combine their document capture and RPA technologies.

"We are excited to partner with Automation Anywhere to bring the present and future of capture to the digital workforce," said Ike Kavas, founder and CEO of Ephesoft. "Our partners and customers look forward to seeing the joint solutions we develop to solve their content and data challenges."

Ephesoft offers a document intelligence platform that provides enhanced capabilities through web services that can be easily consumed by the digital worker.

The majority of business processes include documents, and the digital workforce can use Smart Capture data extraction and classification capabilities to simplify and expedite processes across enterprise departments.

As demand for document processing has gone beyond OCR, Ephesoft has engaged with more RPA partners like Automation Anywhere to integrate technologies and craft capture solutions that serve partners and customers alike.

The companies, which share customers and partners seeking tighter integration and joint capabilities, see significant overlap in primary use cases, particularly in document-laden financial services, insurance, government and healthcare sectors.

Blue Prism boosts Digital Workforce

Blue Prism has announced the availability of its latest connected-RPA offering, Enterprise V6.6. This latest release of Blue Prism's Digital Workforce is designed to automate more strategically and at scale.

The end-to-end automation platform includes access to digital workers from the cloud as well as Blue Prism's "app store", the Digital Exchange (DX) marketplace, where companies like ABBYY, Appian, Google and others have posted hundreds of assets.

The DX currently offers more than 150 Google APIs, so users can add intelligent automation capabilities to their digital workers on the fly.

"For RPA to reach its full potential, simplifying how this technology is delivered, consumed and integrated with existing enterprise systems and standards must be front and centre," says Maureen Fleming, Program Vice President, Intelligent Process Automation at IDC.

"This extends to supporting secure RPA cloud services and making it simple for end users to experiment, deploy and scale their automation projects."

Blue Prism now offers free on-premises and cloud trials of its connected-RPA offering that includes government-level security support. For on-premises trials, a database setup wizard and simplified licensing, along with a "getting started tour" as part of v6.6, simplifies the first-time user experience.

Blue Prism's Data Gateways now offer more functionality, enabling users to better manage how much data they generate with Blue Prism and how to best maintain the data. Enhancements cover three key areas:

■ Data Gateways re-attempt: Information is retained and stored even when Data Gateways is unable to send data to an end point.

■ Work queue analysis snapshots: Users can send work queue snapshots to external endpoints—alongside session logs, published dashboards and custom object data. This increases the data that can be used in external reporting tools and data storage systems.

■ Database maintenance and archiving improvements: Parts of the session log archiving mechanism that transfers data between the server and client have been changed to split large data packets. This reduces the amount of information stored within the Blue Prism database, so users can maintain databases more effectively.

"We're delivering simplified access, either on-premises or in the cloud, to our connected-RPA offering making it more ubiquitous and easier to consume," says Dave Moss, CTO and Co-Founder of Blue Prism.

www.blueprism.com

Why Build a Content Services Platform from Scratch?

By Marko Sillanpaa

I seem to get this question a lot these days from end users, vendors, and even friends wanting to be in the tech market. "Why can't I just build a content services platform (CSP) from scratch." Let's look at that same scenario but with a database.

Put yourself in the shoes of a startup CEO. You're in a meeting with your new CTO who has just finished studying your companies visionary new solution. The CTO's first recommendation is to build a database platform from scratch, "because there nothing out there."

How would you respond?

You would not build a database from scratch. There are too many choices out there and building one would delay you several months. That being the case, why would you ever accept the idea of building a content services platform from scratch?

Managing files in volume is difficult. Building a simple file management system is easy. All it takes is a file system and a database. I've seen several applications that were developed by "Two Guys and a Computer" put into product only to fail once the platform hits full utilization.

The challenge is not the functionality it's the scale. Repositories of hundreds of millions to billions of objects are common.

While we no longer have theoretical limits to files in collections, buckets, or containers there are performance impacts. File size also impacts performance. Performance issues rarely appear in prototype environments or on day one. These performance impacts showing up nine months later in some cases crippling the systems.

But the repository is more than file storage. It's about version control, editor integrations, workflow, records management, etc. All pieces that would need to be developed or included in the platform to meet the basic requirements of a content services platform.

Content Supply Chain

In the vendor ecosystem today, content services applications (CSA) and content services platforms overlap.

For example, let's look at Contract Life Cycle Management where there are solutions from both CSA and CSP vendors. Both sides know what they do well, and they think they know what the others do too. It's more likely that neither side knows what the other is doing. CSPs often have a better understanding of the overall content problem, while CSAs often have a better understanding of what exactly users want to do with content.

The benefits are simple math. A CSP talks to thousands of users about common problems with documents across organizations. This gives CSPs a great overview of the ecosystem, the forest. A CSA talks to thousands of users with specific business requirements. This give the CSA incredible detail into use cases, the trees. But if CSP talked to CSA, we'd be seeing the view of a million users.

Every end user organization that been around for more than 10 years have some sort of home-grown application that they are looking to replace with a commercial application. Your organization has better things to do with its IT budget then to spend it developing an application that already exists. Build versus buy rarely makes sense these days with the various options available.

Managing a content services infrastructure is a part time for a few individuals. Developing and maintaining your custom content services platform will require a small dedicated team. The problems that arise on your platform will often be new to your team, where they would probably have been addressed by vendors in the past.

Applications have options for platforms

The concepts of a CSA being built on a CSP is nothing new. It's been going on for over 20 years. But for the first time there are many options. The choices include from CSP vendors, open source options, and file storage infrastructures. All with various pros and cons.

If you're still leaning towards building your own CSP then ask yourself, "Now that you built it, do you want to maintain it for the next 20 years?"

Marko Sillanpaa is a Research Director within the Digital Workplace, Content and Insights group at Gartner, Inc. He has more than 20 years of experience in information technology focusing on ECM technology.

ACT Health makes SaaS apps move

TechnologyOne has signed a four-year, $A3.2 million whole-of-government SaaS contract with the ACT Health Directorate.TechnologyOne was the successful vendor in a competitive tender to replace ACT Health Directorate's legacy, on-premise inventory management system with an end-to-end enterprise SaaS solution, incorporating supply chain, prosthesis management, BI and analytics.

Stuart MacDonald, TechnologyOne's Chief Operating Officer, said ACT Health Directorate decided to partner with TechnologyOne because it was the only company that could provide a full end-to-end solution with no delivery partners required.

"We are the only provider in the industry to offer a healthcare-specific solution that is capable of seamlessly managing the full supply chain lifecycle of all ACT hospitals," MacDonald said.

Sandra Cook, Acting CIO of the ACT Health Directorate said, "ACT Health develops strategies and sets the direction to ensure services meet community needs and expectations. Our goal is to ensure the health system is innovative, effective and sustainable now and in the future," said Ms Cook.

"ACT Health is looking forward to working collaboratively with TechnologyOne to improve Supply Chain processes for the Territory public health services. The contemporary TechnologyOne platform provides an improved and integrated user experience to assist with the tracking and usage of valuable health supplies."

Low-code delivers for WA Health

Software solutions provider Kiandra has collaborated with Western Australia's (WA) Health Support Services (HSS) to successfully deliver a critical application replacement to enable the WA health system to process up to $A100 million of invoices every year.

Initially implemented in 1998, the Medical Accounts Assessment System (MAAS) is used to assess, process and verify invoices for Contracted Medical Practitioners (CMPs) who provide fee-for-services in WA public hospitals. The original system, previously hosted by Medicare, was decommissioned by the Australian Government on 30 June 2019.

Kiandra and the WA health system's shared services provider, HSS, successfully hit the deadline and launched a replacement MAAS on 1 July.

While previous estimates had pegged the project as requiring 12 months or longer to complete using traditional software development tools, Kiandra and HSS were able to develop, test and launch the new MAAS in only five months using the low-code development platform, OutSystems.

HSS CIO Holger Kaufmann said the new MAAS will enable WA public hospitals and health services to better manage invoices and payments of medical services provided by more than 1000 CMPs in the WA health system.

"This streamlines the processing of up to $100 million worth of CMP invoices each year under one managed system, making it easier and more efficient for our customers," Mr Kaufmann said.

Victorian Hospital attack underscores cyber risk

By Sean Lengyel

With seven Victorian regional hospitals in lockdown for more than 24 hours after a crippling ransomware attack in October, Australia was once again made aware of the threat of cyber criminals.

The ransomware attack by unidentified criminals blocked access to several hospital systems including financial management, with hospitals in some cases having to revert to manual systems.

According to media reports no patient data was stolen but aim of the attack was to extract payment rather than steal information.

The hack demonstrates the ongoing importance of data security, particularly in relation to the protection of records.

Managing cyber risk is an increasing issue for Australian organisations including Defence, Government, Health, Education and Financial Services. Cyber security is no longer a potential risk, it's an ever-increasing threat to Australian businesses today.

It seems every week brings more news of hacking efforts at major banks, credit card providers, and large multi-national companies. The Australian National University (ANU) hack in June and this most recent attack on Victorian hospitals show the wide range of industry sectors being targeted.

So why is this relevant for Information Managers? Cyber security is about protecting your information and critical assets from illicit access, theft and damage. Corporate data at risk includes; customer information, employee records, financial records, personal information and intellectual property. Information Managers, as custodians of records and the policies and procedures governing them, play a vital role in ensuring Organisations protect against cyber-attacks.

Cybercriminals can also disrupt your business through compromising your IT infrastructure to cause financial and business loss.

Is Antivirus enough?

Antivirus software alone is not able to provide sufficient protection. It is estimated that Antivirus products only detect 30-40% of malware on the web.

The Victorian Hospital attack was achieved via a "phishing" email containing a malicious payload.

This is just one of so many ways that innocuous emails or applications can provide a means of entry for cyber criminals.

At Citadel we recently encountered another seemingly harmless application that provided a back door entry for outside agents.

A simple free Screen Capture utility looked innocent enough, but on further investigation, it was discovered that code within the software beaconed back to a Chinese IP address. This was highly suspicious, especially considering the software was developed in the United States.

After being installed onto a test machine, the software immediately attempted to download malicious code.

Cybercriminals typically use this method to pull down secondary stage malware onto a machine, to execute and potentially take control of a computer or a network with little or no evidence that anything untoward has occurred. Once a cybercriminal has access, any data on that system is compromised.

Antivirus products are NOT a silver bullet for detecting malicious activity, a professional defence-in-depth model is essential to protect your corporate information, combining secure software solutions and a trusted implementation and support team.

Secure Cloud Technology

One of the benefits of operating in a cloud environment is that no installations are needed on end devices and therefore exposure to attacks is significantly reduced. Citadel-IX is a secure information management solution that brings together security and information management expertise and utilises cloud technology to deliver a secure and trusted, fully hosted enterprise content management system.

Citadel-IX is the only end-to-end ISO 27001 certified Content Manager Solution in Australia and this certification demonstrates a proactive approach towards information security threats and adoption of best practices to minimise threats.

Sean Lengyel is Senior Information Security Officer at The Citadel Group.

New look and feel for EzeScan 5.0

Outback Imaging has released the latest version of EzeScan, its document capture and business process digitisation software, designed to take the hard work out of capturing hardcopy and digital born assets.

This latest release of EzeScan 5.0 provides several enhancements and updates along with a new modern user interface (UI).

The new UI delivers a fresh look and feel as well as providing a new flexible layout that gives users the ability to display more thumbnails of scanned and processed documents on the main display, as well as the ability to choose how and where they are displayed.

Behind the scenes, EzeScan 5.0 has benefitted from some major architecture improvements, making ongoing development and the addition of new features and functionality easier. Installation has also been improved with minimal component registration and the streamlining of dependencies. For the end user this all means a more robust EzeScan with boosted processing speeds for converting documents, performing enhance-ments, OCR, registering and uploading documents.

"EzeScan 5.0 is quicker and more responsive, something that our clients have been seeking as they deal with ever increasing workloads," said Demos Gougoulas, Director, Sales & Marketing at Outback Imaging.

"More and more records are being born digital, but this does not lessen the workload for document processing. It is critical to ensure that documents entering the organisation are named and filed correctly so they can be put it to use faster."

Adding to EzeScan's extensive list of supported integrations, EzeScan 5.0 introduces direct integration with Office 365, OneDrive, Box, Google Drive, so documents can be seamlessly registered into these systems without any third-party scripting.

EzeScan 5.0 now features the ability to register business rules directly, including document types, metadata requirements, taxonomy rules, EDRMS locations and supported workflows.

Another new feature is the seamless 2-way integration between EzeScan PRO/SERVER and EzeScan WebApps. With the new integration, an EzeScan 5.0 user can now submit documents to the decentralised EzeScan WebApp queues to initiate intelligent business workflows. EzeScan WebApps were designed to deliver intelligent document capture capabilities to decentralised workgroups using a web browser interface from any device.

WebApp solutions include automated records workgroup capture from MFDs, digital mailroom distribution, mobile digital file capture, file approval and intelligent barcode creation.

For more information contact Demos Gougoulas, .Email: demos@ezescan.com.au Tel: 0433 144 522
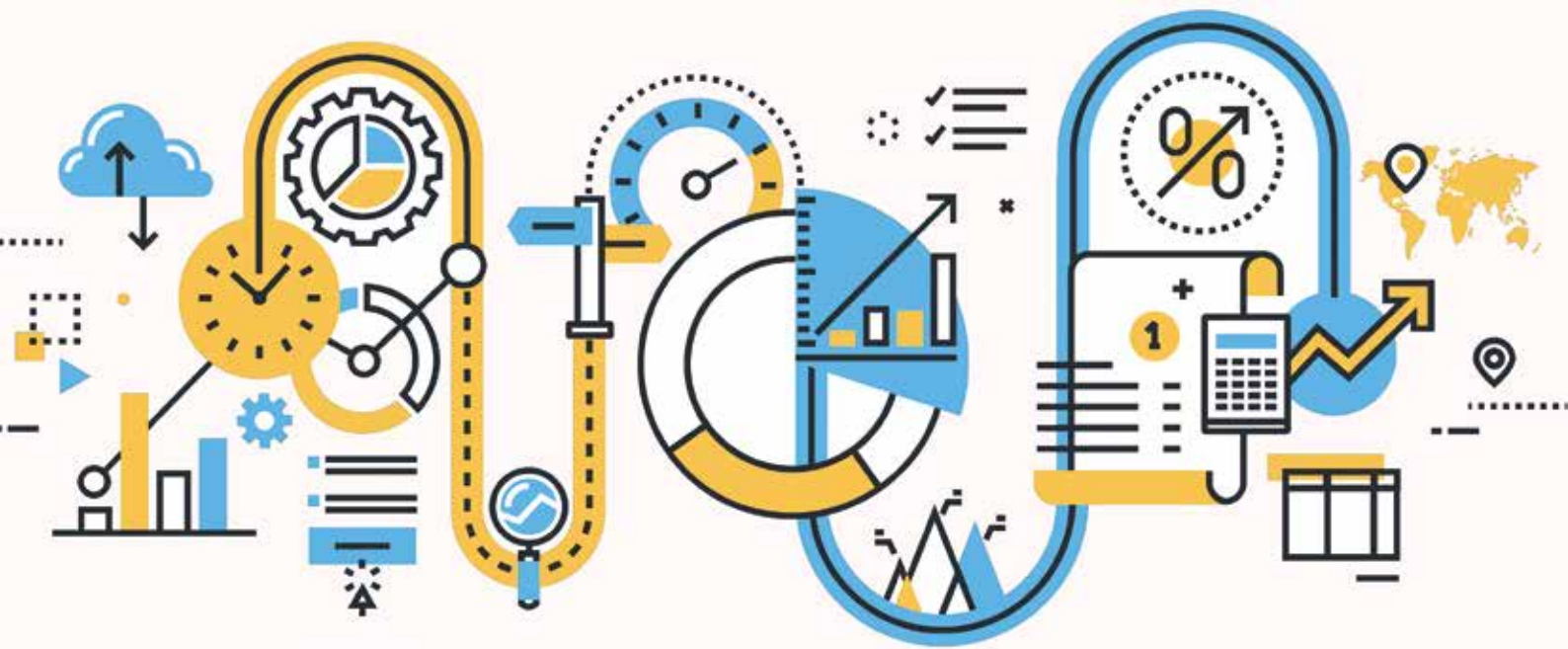
The Inevitability of Automation

By Rachael Greaves, Chief Information Officer, Castlepoint Systems

Automated records and information management has been on the horizon for over 10 years, but Australian government and regulated entities are only now making their first forays into the brave new world of automated control systems.

The drive to automate comes partly from Federal government (the Department of Finance recommended a move to automation in 2015), but mostly from the impracticality of continuing to register, sentence and dispose of records using people-power. The problems experienced by government agencies in trying to grapple with their records using traditional systems are compounding and require a change in approach.

The regulatory wave

The National Archives of Australia (NAA) does make it clear that entities need to manage all their evidence of business (which includes almost all content, in all systems, and of all formats). It has been running the Check-Up process in various incarnations since 2014, and is still only seeing 12% of agencies doing any disposition of digital records.

The NAA is working on a post-2020 strategy now, and a new plan on driving agency compliance can be expected within the next 12 months. NAA will continue engaging with the C-Suite of government to drive home the importance of controlling our digital records properly.

But it's not just National Archives putting pressure on agencies to manage their records effectively. Many other pressure points exist on information and records managers, and the pressure is going to continue to grow, in some cases exponentially.

The amount of regulation we are subject to is increasing, as is the scope of information it spans. One other source

Royal Commissions in the Digital Era
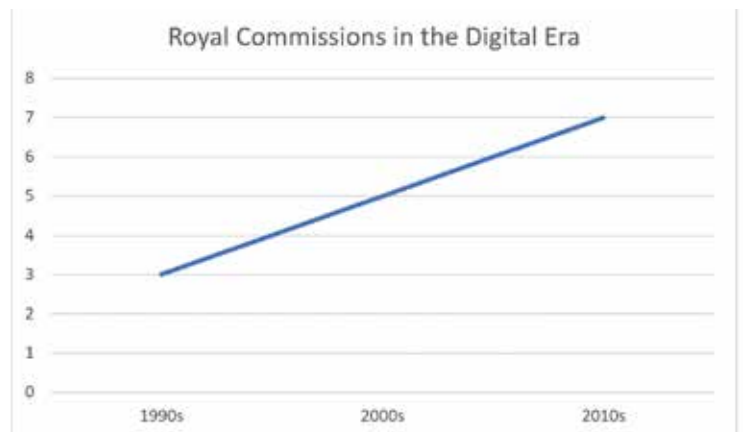
of stringent, but unpredictable, record requirements is Royal Commissions. These often relate to topics that have not been explicitly considered in Records Authorities or in legislation.

When a Royal Commission is announced, historical and current records about a certain subject are suddenly needed, and must be dredged up – and then protected from any deletion or modification for the duration of the inquiry. In the current decade, there have already been seven Royal Commissions at the federal level, with more possible by 2020. The numbers are small, but there has been an uptick over the last 30 years.

The first 50 years of Royal Commissions focused mainly on industry, government and financial inquiries, with some military and sociocultural topics addressed early on. Over the next 50 years, while government and industry remained hot topics, crime, disaster, military and national security topics also became more important.

But the last decade has seen a significant focus on sociocultural issues (i.e. child sexual abuse, youth detention and aged care). In fact, over 50% of all sociocultural Royal Commissions for the last 120 years have been established in the last 5 years.

Sociocultural inquiries affect more agencies. Government has the mandate to establish, enact and enforce laws, and laws are intended to protect the welfare of citizens. Essentially, government overall is supposed to protect our sociocultural values.

While some departments may have a lot to do with industry, crime or national security, most are established to support sociocultural goals. As such, more 'sociocultural' Royal Commissions may mean more records discovery and control impact on more agencies – and agencies need to be prepared for this.

Disposal Freezes

In addition to Royal Commissions, there are other types of disposition holds enforced by the National Archives. There are 12 current freezes/retention notices include those relating to current and recent Royal Commissions, as well as AFFF fire suppressants, allegations of abuse in Defence, superannuation, atomic testing, the Vietnam War, and indigenous rights. Again, a range of topics from military to sociocultural – and hard to predict before they arose.

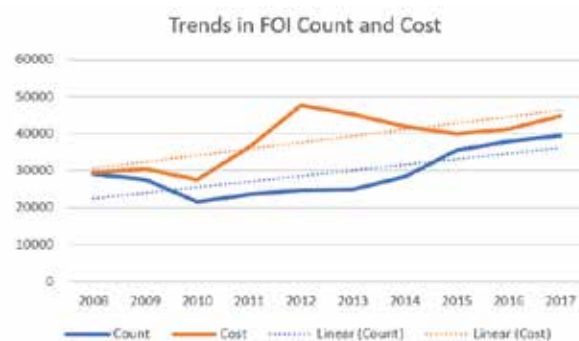The fire suppressants freeze, for example, is for PFAS chemicals, which have not previously been considered hazardous. If agencies have 'prioritised' their record governance to focus only on known hazardous chemicals, they may have not instituted any controls over PFAS-related records. In many cases, key records that could help determine key facts in the legal cases are 'missing'. This means that now, when we have found out that these substances can be harmful, we are not in a position to see the full history of their use.

Of the 12 freezes and records retention notices currently in place, two date from the 80s, and one from the 90s. In the past 10 years since 2008, there has been an average of one new freeze or notice issued or extended every year.

If this trend continues, that implies a new category of records every year that must be found, no matter what system or format they are in, and some kind of control applied to ensure sure they are not deleted, destroyed or

ANAO Performance Audits

modified without authorisation. If most of these records are in non-EDRMS systems with no records management control over them, it won't be possible to meet this legal obligation to freeze them in whatever system they reside.

ANAO Audits

Separate to the NAA, the Australian National Audit Office (ANAO) can and frequently does require agencies to furnish all records related to a topic. There are approximately 50 audits a year, spanning all departments, and ANAO Performance Audits are trending overall slightly up.

ANAO audits already take on average 10 months, and place a large burden on records and information managers to help the auditors source and verify in-scope records, sometimes dating back many years. The ANAO is now taking a more data-enabled approach to its audits, which may mean more requirements to furnish data from structured systems and databases, not just documents and emails.

Trends in Request Type

Trends in FOI Count and Cost

Freedom of Information requests

Another major demand placed on government records managers is the growing number of Freedom of Information (FOI) requests and Privacy discoveries. The cost of these discoveries is increasing at 300% ahead of inflation.

The chart below shows the number of complaint, review or other decisions made since 2011 by the Australian Information, Freedom of Information or Privacy Commissioners, under the Freedom of Information Act 1982 or the Privacy Act 1988.

These escalated cases incur extra cost to agencies, and we can see that the overall trend is definitely a steep upward one since reporting started in 2011.

So, disclosure requests, costs and review actions are increasing steadily, well outpacing inflation and population growth. All this means that government agencies need records kept in a very good state.

Not only do they need to be able to respond to FOI requests that do arise more quickly and much more efficiently, but they also need to be able to demonstrate that they have actually taken reasonable steps to find in-scope records, to minimise the number that are escalated to the Commissioners.

(Continued over)

The Inevitability of Automation

FOI and Privacy Decisions

And of course, record-keeping needs to be done well in the first place, so that there aren't as many mistakes that can trigger FOI discoveries or privacy complaints.

Security and Privacy Breaches

In the above cases, agencies will be compelled to furnish their records to those requesting them. If they aren't able to find key information, or if they provide extraneous, outdated or incomplete information, the job of the investigators will be made more difficult, and the potential rebound on the agency could be significant.

For this reason, agencies have to expend a lot of effort in searching thoroughly for relevant records, and then in reviewing and sanitising those records (including redacting sensitive information) so that only the information in scope of the request is provided.

But for another group that want access to agency data, there is no polite request process. Agencies do not have a chance to sanitise what they take, or even know it has been taken. Threat actors, including foreign intelligence services, cybercriminals, and organised crime groups can come into possession of agency records by attacking networks, or by exploiting malicious or careless insiders. They can also change records, or destroy information, often without detection.

We looked already at the rising costs of data breaches globally, but we can look closer to home this year thanks to the Office of the Information Commissioner's Notifiable Data Breaches Scheme. Since the scheme commenced, reported breaches have steadily increased every month. Malicious attacks accounted for 59% of the reported breaches.

Attacks and other breaches are increasing at a steady rate. The more data we have, the more data we have at risk of being exposed in one of these breaches. There are only three ways to reduce the risk of a confidentiality, integrity or accessibility breach of sensitive records.

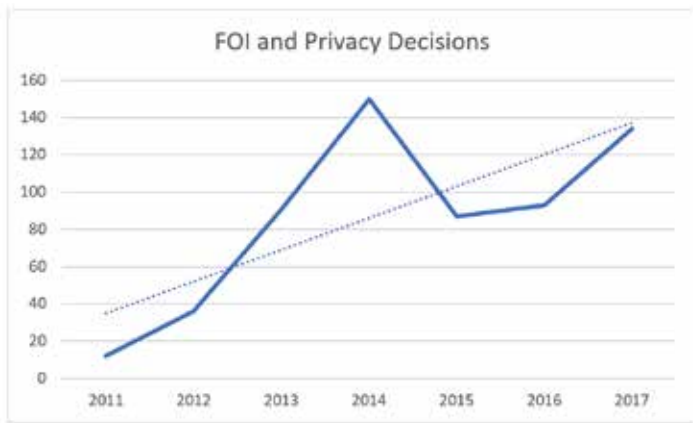Firstly, by not capturing them in the first place. Secondly, where they are required to be captured, by securing them effectively. And finally, where they are no longer required to be retained, by securely and permanently destroying them.

Agencies who do not have full insight into, and control of, their business systems, may not realise they are storing high-risk information that they don't need, or that they don't need any more.

If we can't find where all our potentially sensitive records

are, especially in legacy systems, we can't protect them properly. A failure to records-manage business systems, which hold most of our important data, is a failure to secure our information.

The last word

The uptick in Royal Commissions, disposition freezes, the increase in legal discoveries, more and more FOI and privacy discoveries, the increased ANAO focus on big data, and the increase in deliberate and accidental breaches of information are all good reasons to take stock of your holdings, understand exactly what you have, and dispose of what you absolutely don't need. Especially because all of these factors have a multiplier – more data.

The population is growing. And the public sector is growing overall. More staff are producing more records, about more people. And that looks a little bit like this:
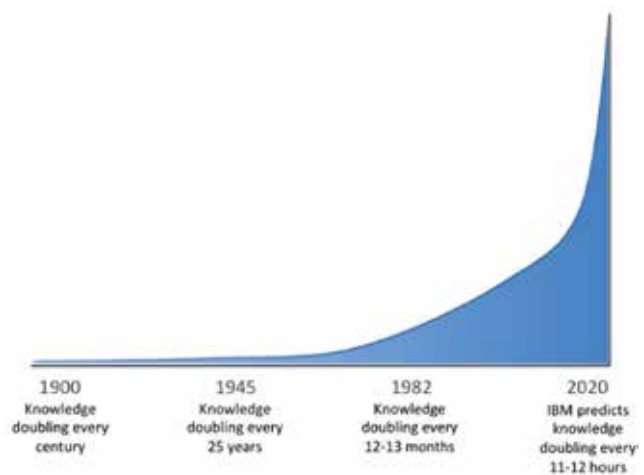
This is the Buckminster Fuller Knowledge Doubling Curve (with later addition by IBM). It predicts that by 2020, global knowledge will double twice a day. This represents an exponential increase.

More systems (including internet-of-things and AI systems) exist; they generate more data than traditional human-driven systems; data sets (and data users) are interconnected; and we collaborate and share information more than we used to. Government has embraced collaboration, and is starting to embrace big-data and AI. The information landscape is changing, and it's getting much, much bigger. As we have an exponential increase in information, we have a commensurate increase in risk and cost. And because information grows and changes so rapidly, it becomes obsolete much faster.

We don't buy leather bound encyclopaedias anymore, because they become outmoded almost immediately as new discoveries are made. In the same way, documents we wrote and relied upon up to a decade ago become less and less useful over time, as so much changes in the interim. Information comes at us faster and faster, but it has a much shorter useful lifespan.

This is particularly tricky for government, as we may still have legal obligations to keep records for years or decades, even if their 'usefulness' was only weeks or months.

It is becoming increasingly obvious that automation is the only answer to getting a good handle on this rapid influx of data.

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Information Discovery
↓ 97.5%

Disposition Action
↓ 98.5%

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↓ 99.8%

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Castlepoint is a single solution to manage all of your information. It registers, classifies and sentences all records, regardless of systems or formats, using Artificial Intelligence. Castlepoint provides full visibility of all actions on records, as well as powerful security, audit and discovery capabilities, for complete command and control of the whole environment through a single interface.

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Automated Records Management in action at a Government agency

By Rachael Greaves

Automation is inevitable to support the increased audit, FOI, eDiscovery, security and other regulatory obligations that government agencies are expected to meet.

Recently, Castlepoint engaged with a small specialist Federal agency. The agency had been running a manual sentencing process for two years, which involved reviewing content in a legacy shared drive and classifying it against AFDA Express and their Records Authority (RA). It wanted to explore an automation solution as an alternative.

We implemented Castlepoint and ran it across the same drive, registering, classifying and sentencing the content using Artificial Intelligence (AI).

In parallel, we selected a random sample of files, and undertook a separate manual sentencing activity by a qualified records manager, blind to the results of both the original manual activity and the Castlepoint audit.

Cost of sentencing

The previous manual process had involved:

- Gaining access to required shares
- Reviewing the documents
- Mapping the documents based on topics to an applicable RA
- Manually calculating disposition date, based on Class and last-modified date
- Renaming the individual document to include the disposition year and Class.

Approximately 1 million items were sentenced in this way. The projected cost to complete sentencing of the 4.6

million items in the drive was 223 weeks, which is the equivalent of about A$300,000 APS6 FTE salary.

Our team installed Castlepoint, and used it to run an automated classification and sentencing process. The high level process looks like this:

1. Install the software and connect to the data store

2. Register every file and relate it to its aggregation

3. Read every word in every item, regardless of format or length

4. Extract key phrases and named entities from each item using AI

5. Map the key phrases to the Records Authorities to determine all potential matches

6. Identify which of the applicable classes has the longest retention

7. Sentence the record against that Class, and calculate disposition date based on its metadata

After installation, the audit took 30 days to run across all 4.6 million items (average 40,000 items a day, or 280,000 per week – one every two seconds).

The cost of a Castlepoint enterprise license for this type of organisation is under $A20,000.00 per annum, so there was a 70% reduction in per-item costs (from 7c per item to 0.004 cents). This would continue to reduce as Castlepoint ran across more systems, as the license is for the whole enterprise. Overall, we reduced the cost of processing by 95% per item.

The other huge benefit of automation is extensibility. We ran some other key uses cases with Castlepoint, with the following projected results:

- Discovery: $A401,535.82 to $A10,018.40 (97.5%) per annum.

- Disposition: $A1,867.56 to $A27.33 (98.5%) per action.

- Identifying redundant items: $A85.42 to $A2.66 (97%) per record.

- Reporting and auditing: $A1,936.63 to $A4.56 (99.8%) per event.

Our projected Return on Investment for Castlepoint was under one month to 100% cost recovery.

One thing to note is that manual classification should still be the gold standard. No AI can make inferences and assessments about the content and context of a document with the sophistication of a human brain.

But the benefits we can achieve from having human evaluators are quickly undermined by the sheer scale of the problem.

To categorise all of these records in the timeframe, the manual sentencer had sentence on average 20,970 items a week, which required them to sentence nine items per minute (one every seven seconds). There is no time, in this model, to read and understand the entire document.

As a result, our validation exercise identified some key issues.

Under-classification

We found that 75% of the manually classified records in the sample size were potentially under-classified, and should be retained 40% longer than currently planned.

This under-classification was caused by assessing the records based on their title and a (necessarily) quick scan of their content, which did not allow the sentencer to identify small (but key) portions of text that elevated the item from a 7-year class to a 10-year class, for example.

We also found that a lot of content was assigned Normal Administrative Practice (NAP) Classification for ad hoc deletion, as part of a necessary strategy to expedite the sentencing activity.

Items were marked as NAP based on risk-based decisions, such as their format. Castlepoint's assessment of the records marked as NAP indicated that most actually needed to be retained.

Castlepoint had a 100% success rate in retention application, compared to the in-depth records manager sentencing action. Castlepoint also used the retention on individual items to calculate the retention of the whole aggregation, reducing the number of disposition actions required.

Assessment gaps

The sentencer could not open some types of files, meaning they could not be sentenced at all. Attachments in emails couldn't be opened; hidden files, system files, files with overlong names, and zip files were excluded.

In this share, the most common file types included .properties, .bat, .html and .gz. which the sentencer couldn't read. Castlepoint was able to read all of these.

Processing issues

We found that the requirement to rename files introduced some classification mistakes based on typographical errors.

Transposing two digits changed the applied Class, and as such the sentence (e.g. 20314/20334 vs. 20344). Also, opening the file to appraise it can change the metadata, which affects the sentence calculation, so care must be taken here. Castlepoint avoided these issues by maintaining a standalone register of all items, and not modifying the source.

Limited defensible data

Disposition decisions need to be defensible. When we give a business owner a file name, out of context with its other related records, they are not able to make informed decisions about whether the sentence is appropriate without themselves also reviewing the document.

Castlepoint provided the key phrases that were used to make the decision, so the owner could simply review these to validate the sentence.

Risk and value

Class isn't the only consideration when it comes to disposition. We also need to know if the content could be subject to a retention hold or disposition freeze. We need to know if it relates to any key work that is ongoing, as it may still have real value to the organisation.

On the flip side, we need to know if it's a risky item. If it contains PII, details about Spent Convictions, sensitive commercial or other confidential information, or classified information, it may need to be disposed of more expeditiously (and handled differently) to less sensitive items. Castlepoint identified over 500 items with sensitive content, and over 2,500 items subject to a freeze or hold. It also flagged actionable events, including deletions, classification downgrades, unauthorised modifications, or any other action we wanted visibility of.

We also created a taxonomy of 'high value' terms, so that the agency can easily see and protect information that is of interest to the executive, key projects, or current regulatory activities.

Summary

Artificial Intelligence has the advantage and relative luxury of being able to read every single word in a document, extremely quickly, and can scan and re-scan 24 hours a day without a break. AI doesn't suffer from decision fatigue, or compassion fatigue, eye strain, or even a sore finger from clicking and scrolling. AI is a machine, and we can use that to our advantage to do the heavy lifting for us. Making the machine read all of the words, and apply all of the rules, frees up our subject matter experts in records management to add real value, and more easily make decisions.

So automation can help us make sure that:

- The sentence is always current

- We sentence the whole aggregation, in context

- We can layer our sentencing decisions easily with evidence about classification, holds/freezes, low-value, high-value, or high-risk information

- We stop wasting records manager time and business owner time trying to read every document in order to make good decisions

- We can let users use any system, in any way they want – we don't need to get in the way of their work, as automation can process so much, and so quickly, that there is no need to constrain usage scenarios (or enforce metadata rules) to make the outputs more useful.

https://www.castlepoint.systems/

Build a Knowledge Graph in 4 Steps
A Roadmap From Metadata to AI

By Lulit Tesfaye

The scale and speed at which data and information is being generated today makes it challenging for organizations to effectively capture valuable insights from massive amounts of information and diverse sources.

We rely on Google, Amazon, Alexa, and other chatbots because they help us find and act on information in the same way and manner that we typically think about things. As organizations explore the next generation of scalable data management approaches, leveraging advanced capabilities such as automation becomes a competitive advantage.

Think about the multiple times organizations have undergone robust technological transformations. Despite developing a business case, a strategy, and a long-term implementation roadmap, many often still fail to effect or embrace the change. The most common challenges we see facing the enterprise in this space today include:

■ Limited understanding of the business application and use cases to define a clear vision and strategy.

■ Not knowing where to start, in terms of selecting the most relevant and cost-effective business use case(s) as well as supportive business or functional teams to support rapid validations.

■ There are multiple initiatives across the organization that are not streamlined or optimized for the enterprise.

■ Enterprise data and information is disparate, redundant, and not readily available for use.

■ Lack of the required skill sets and training.

Our experience at Enterprise Knowledge demonstrates that most organizations are already either developing or leveraging some form of Artificial Intelligence (AI) capabilities to enhance their knowledge, data, and information management.

Commonly, these capabilities fall under existing functions or titles within the organization, such as data science or engineering, business analytics, information management, or data operations.

However, given the technological advancements and the increasing values of organizational knowledge and data in our work and the marketplace today, organizational leaders that treat their information and data as an asset and invest strategically to augment and optimize the same have already started reaping the benefits and having their staff focus on more value add tasks and contributing to complex analytical work to build the business.

The most pragmatic approaches for developing a tailored strategy and roadmap toward AI begin by looking at existing capabilities and foundational strengths in your data and information management practices, such as metadata, taxonomies, ontologies, and knowledge graphs, as these will serve as foundational pillars for AI.

Below, I share in detail a series of steps and successful approaches that will serve as key considerations for turning your information and data into foundational assets for the future of technology.

What is AI?

At EK, we see AI in the context of leveraging machines to imitate human behaviours and deliver organizational knowledge and information in real and actionable ways that closely align with the way we look for and process knowledge, data, and information.

What is a Knowledge Graph?

An Enterprise Knowledge Graph provides a representation of an organization's knowledge, domain, and artefacts that is understood by both humans and machines. To this end, Knowledge Graphs serve as a foundational pillar for AI, and AI provides organizations with optimized solutions and approaches to achieve overarching business objectives, either through automation or through enhanced cognitive capabilities.

Step 1: Identify Your Use Cases for Knowledge Graphs and AI?

As an enterprise considers undergoing critical transformations, it becomes evident that most of their efforts are usually competing for the same resources, priorities, and funds. Identifying a solid business case for knowledge graphs and AI efforts becomes the foundational starting point to gain support and buy-in.

Effective business applications and use cases are those that are driven by strategic goals, have defined business value either for a particular function or cross-functional team, and make processes or services more efficient and intelligent for the enterprise. Prioritization and selection of use cases should be driven by the foundational value proposition of the use-case for future implementations, technical and infrastructure complexity, stakeholder interest, and availability to support implementation.

The most relevant use cases for implementing knowledge graphs and AI include:

■ Intuitive search using natural language;

■ Discovering related content and information, structured or unstructured;

■ Reliable content and data governance;

■ Compliance and operational risk prediction; etc.

Once your most relevant business question(s) or use cases have been prioritized and selected, you are now ready to move into the selection and organization of relevant data or content sources that are pertinent to provide an answer or solution to the business case.

Step 2: Inventory and Organize Relevant Data

The majority of the content that organizations work with is unstructured in the form of emails, articles, text files, presentations, etc. Taxonomy, metadata, and data catalogues allow for effective classification and categorization of both structured and unstructured information for the purposes of findability and discoverability.

Specifically, developing a business taxonomy provides structure to unstructured information and ensures that an organization can effectively capture, manage, and derive meaning from large amounts of content and information.

There are a few approaches for inventorying and organizing enterprise content and data. If you are faced with the challenging task of inventorying millions of content items, consider using tools to automate the process.

A great starting place we recommend here would be to conduct user or Subject Matter Expert (SME) focused design sessions, coupled with bottom-up analysis of selected content, to determine which facets of content are important to your use case.

Taxonomies and metadata that are the most intuitive and close to business process and culture tend to facilitate faster and more useful terms to structure your content.

Organizing your content and data in such a way gives your organization the stepping stone towards having information in machine readable format, laying the foundation for semantic models, such as ontologies, to understand and use the organizations vocabulary, and start mapping relationships to add context and meaning to disparate data.

Step 3: Map Relationships Across Your Data

Ontologies leverage taxonomies and metadata to provide the knowledge for how relationships and connections are to be made between information and data components (entities) across multiple data sources.

Ontology data models further enable us to map relationships in a single location at varying levels of detail and layers. This, in turn, sets the groundwork for more intelligent and efficient AI capabilities, such as text mining and identifying context-based recommendations.

These relationship models further allow for:

■ Increasing reuse of "hidden" and unknown information;

■ Managing content more effectively;

■ Optimizing search; and

■ Creating relationships between disparate and distributed information items.

Tapping the power of ontologies to define the types of relationships and connections for your data provides the template to map your knowledge into your data and the blueprint needed to create a knowledge graph.

Step 4: Proof of Concept – Add Knowledge to your Data Using a Graph Database

Because of their structure, knowledge graphs allow us to capture related data the way the human brain processes information through the lens of people, places, processes, and things.

Knowledge graphs, backed by a graph database and a linked data store, provide the platform required for storing, reasoning, inferring, and using data with structure and context. This plays a fundamental role in providing the architecture and data models that enable machine learning (ML) and other AI capabilities such as making inferences to generate new insights and to drive more efficient and intelligent data and information management solutions.

Start small. Conduct a proof of concept or a rapid prototype in a test environment based on the use cases selected/prioritized and the dataset or content source selected. This will give you the flexibility needed to iteratively validate the ontology model against real data/content, fine tune for tagging of internal & external sources to enhance your knowledge graph, deliver a working proof of concept, and continue to demonstrate the benefits while showing progress quickly.

Testing a knowledge graph model and a graph database within such a confined scope will enable your organization to gain perspective on value and complexity before investing big.

This approach will position you to adjust and incrementally add more use cases to reach a larger audience across functions. As you continue to enhance and expand your knowledge across your content and data, you are layering the flexibility to add on more advanced features and intuitive solutions such as semantic search including natural language processing (NLP), chatbots, and voice assistants getting your enterprise closer to a Google and Amazon-like experience.

Ready for AI? Automate, Optimize, and Scale.

Core AI features, such as ML, NLP, predictive analytics, inference, etc., lend themselves to robust information and data management capabilities. There is a mutual relationship between having quality content/data and AI.

The cleaner and more optimized that our data, is the easier it is for AI to leverage that data and, in turn, help the organization get the most value out of it. Within the context of information and data management, AI provides the organization with the most efficient and intelligent business applications and values that include:

■ Semantic search that provides flexible and faster access to your data through the ability to use natural language to query massive amounts of both unstructured and structured content. Leveraging auto-tagging, categorization, and clustering capabilities further enables continuous enhancement and governance of taxonomies/ontologies and knowledge graphs.

■ Discover hidden facts and relationships based on patterns and inferences that allow for large scale analysis and identification of related topics and things.

■ Optimize data management and governance through machine-trained workflows, data quality checks, security, and tracking.

Organizations that approach large initiatives toward AI with small (one or two) use cases, and iteratively prototype to make adjustments, tend to deliver value incrementally and continue to garner support throughout. The components that go into achieving this organizational maturity also require sustainable efficiency and show continuous value to scale.

As your organization is looking to invest in a new and robust set of tools, the most fundamental evaluation question now becomes ensuring the tool will be able to make extensive use of AI.

If you are exploring pragmatic ways to benefit from knowledge graphs and AI within your organization, we can help you bring proven experience and tested approaches to realize and embrace their values.

Lulit Tesfaye is Practice Lead, Data & Information Management | Knowledge Graphs | Semantic AI at consulting firm Enterprise Knowledge.

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How much customer data should firms be forced to share?

By Rob Nicholls and Peter Leonard, UNSW

Australia is on the cusp of a new era where consumers will be granted the right to access and share data about themselves and their transactions as captured by businesses they deal with, such as banks, electricity retailers, and phone and internet service providers.

Known as a consumer data right (CDR), it has the potential to facilitate consumer choice and so boost competition. However, there is debate about how much customer data these businesses should be forced to share, with concerns that allowing access and sharing of too much data could hinder innovation.

From February 2020, Australia's Big Four banks will have to provide customers with electronic data about their transactions using credit and debit cards, deposit and transaction accounts, mortgages, and details customers have provided about themselves. Retail electricity and telecommunications accounts will follow later.

Data portability – a new right conferred upon individuals to have data about them and their transactions made available to them in a convenient electronic format – is being created in different ways in different countries.

In Europe, the right to access data is broader (economy wide), much less specified (and therefore open to interpretation and resistance) and available only to individuals.

In Australia the CDR will confer on customers of any size (not just individuals or consumers) a right to access specific data relating to particular categories of transactions conducted by them with particular regulated businesses.

Data types and categories that must be made available

A key issue is the balance between competition benefits and scope to innovate

by regulated businesses are defined in the rules, with the result that there will be little wiggle room for the creation of roadblocks or argument over interpretation of the rules.

Limited conception

Peter Leonard, a data commercialisation consultant and a Professor of Practice at UNSW Business School, outlines the differences:

"The European data portability right is a broad right directly derived from European thinking on fundamental human rights, particularly a conception that each human should have better control of personal data that relates to that human," says Leonard.

"The European law – the General Data Protection Regulation, or GDPR – doesn't spell out this theoretical underpinning, but it is clear that data portability is enjoyed only by humans.

"By contrast, the Australian version of data portability – the CDR – will be available for all customers of any type or size, but only for transaction types and particular business-es with industry sectors if and when the Australian Treasurer decides that the CDR should come into operation.

"It is not a human right at all, so it is not conferred only upon individuals. Indeed, its conception in Australia had little to do with data privacy of individuals at all, or consumers. It is a customer right.

"The Australian Treasurer decides which businesses in

which sectors are to be regulated, if and when and in relation to what data types. The principal regulator, the Australian Competition and Consumer Commission (ACCC), provides advice to the Treasurer and designs and administers the machinery to make the CDR happen. The courts have little role to play."

Leonard says because of this limited (albeit important) conception of the Australian CDR, pressure may continue to build for creation of a broader data portability right like the European right.

He expects debate in Australia around data portability as a privacy right to gain traction, regardless of implementation of the Australian CDR.

Reshaping markets

For consumers – and for promoting competition – data portability is important in two ways.

"If the customer can take their data somewhere else, they then can remove that data from the control of the organisation they're taking it from and gain control of their data, potentially as currency to deal with a new provider," says Leonard, whose career as a business lawyer has focused on advising data-driven businesses.

Customers will be able to supply their data to another provider to see if the provider can offer a better deal. Second, their data itself will have value and they can use this to bargain with organisations.

According to Leonard, this has the potential to make intermediaries – those businesses and websites that receive and analyse customer data – powerful businesses in their own right.

An important consideration is how much governments and the competition regulator – in Australia's case the ACCC – want to influence markets and competition.

"The big question lurking here is, will the competition commission use its newfound discretions to try and reshape markets the way that it would like those markets to look?" says Leonard.

"Or will it see itself as the faithful servant of the consumer, enabling the consumer to move data and then leave the markets to sort themselves out as they will in free markets?"

For instance, when the open banking regime comes into full force, there is the question of how many different businesses will be accredited to receive customer data from the banks.

"The way that you define the obligations and requirements and accreditation criteria that an accredited data recipient must meet will be critical in determining the extent to which the consumer data right reshapes what competition looks like, and who may become competitors to the businesses that are required by the CDR rules to make available customer data," Leonard says.

Value-added data

Another significant issue is whether enhanced or value-added data should be subject to the CDR. This data goes beyond transaction data and other basic information about customers, and can be insights, behavioural factors and other inferences about the customer drawn from their transaction data and other information available to a business.

Leonard suggests that it is important to get the balance right in determining what value-added data is subject to

the CDR, because getting that balance wrong can reduce a business' incentive to innovate.

While the open banking regime was originally conceived as one in which only basic data, such as customer-volunteered information and transaction data, was to be portable, Leonard notes the government is now planning to leave the decision about which data to include, and which data to exclude, to the relevant minister, as advised by the ACCC.

"You shouldn't extend the right to include significantly value-added data because the value-add is precisely where the innovation can and often will happen," he says.

Rob Nicholls, a senior lecturer in the school of taxation and business law at UNSW Business School, agrees about the importance of data-driven innovation, describing it as "probably the biggest potential source of growth arguably in services driving the Australian economy".

But Nicholls also sees the CDR as a development with the potential to significantly spur competition.

'It is not a human right at all, so it is not conferred only upon individuals'

If Coles supermarkets, for instance, had to release data about their customers' loyalty schemes transactions and behaviours to Aldi, then the level of competitiveness between those providers may change quite a lot.

"At the moment, what any business tries to do is to create stickiness to their goods and services. The easiest way to create stickiness and loyalty is to reward loyalty but also to reward it in a way that isn't terribly portable," he says.

Nirvana target

Nicholls is interested in finding a balance between the competition benefits that data portability would bring against allowing so much data to be accessible that it has a chilling effect on innovation.

On the one hand, allowing companies to tightly hold on to their data can create a winner-takes-all or a winner-takes-most scenario in the digital economy – for instance, where Facebook won out over social media rival Myspace.

Against this is the risk that if companies cannot hold on to their value-added data, then products and services become more-or-less the same, also reducing competition.

"They're commodities, so there's not very much product differentiation. When there's not much product differentiation, there's not much price differentiation," says Nicholls.

He sums up what is at stake: "The risk of over-intervention is you get commodification. The risk of under-intervention is you get a monopoly. Broadly, both of those aren't great outcomes for businesses, but somewhere in between is a vibrantly competitive sector which innovates to compete and produces great new services and [that's the] nirvana target."

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As documents are removed from envelopes/folders and scanned, operators can view each image to ensure it is properly captured. This prevents time-consuming and costly re-scanning later in the process. Moving image capture upstream also reduces information management risks.

ABBYY deploys Machine Learning

ABBYY's FlexiCapture 12 has been enhanced with machine learning (ML) technology to improve the accuracy and speed of processing enterprise content.

"Powered with ML and AI, ABBYY FlexiCapture is the most comprehensive, robust, and technologically advanced platform that supports organizations' digital strategies," commented Bruce Orcutt, Senior Vice President of Product Marketing at ABBYY.

Additionally, ABBYY is testing the application of natural language processing (NLP) technology in FlexiCapture to extend capture capabilities to unstructured documents. NLP will make unstructured data easier to understand, analyse and consume by providing structure through content classification and entity extraction.

Through the use of ML and AI, internal ABBYY tests demonstrated that FlexiCapture 12.3 can achieve a more than 93% extraction accuracy rate that can feed data into robotic process automation (RPA), business process management (BPM) and content driven process engines.

Other performance enhancements include:

■ Overall FlexiCapture 12.3 platform performance is improved by 50% for small batches (3-5 pages) and 10% for large batches (100 pages)

■ Updated neural network improved invoice extraction quality

■ New machine learning methods increased extraction rates and improved processing of complex tables.

https://www.abbyy.com/en-au/

Box adds new security controls

Cloud storage company Box has announce enhancements to Box Relay, designed to help users secure their most important data and collaborate more easily on various projects.

Box Shield is an add-on service built into Box's content management suite that helps detect anomalies and risky behaviour and prevent data from being stolen or misused.

With Box Shield, administrators can set up policies governing access to documents stored in Box, limiting the ability to share links to or download certain files.

The service also uses machine learning to alert administrators to abnormal behaviour that could indicate an account has been hacked.

For example, if a user suddenly displays changes to download behaviour, or logs in from an unusual location, the account would automatically be flagged and, depending on the pre-set policies, could be prevented from accessing or downloading files.

Box Relay, the company's workflow automation tool, gains the ability to start workflows manually from owned or co-owned files. Another new feature enables users to assign specific tasks to Box Groups. Finally, Box is adding the ability to approve, reject or mark tasks as complete from a mobile device.

Anzo attacks Data Analytics

Cambridge Semantics has announced updates to its Anzo data discovery and integration platform. The most notable update to Anzo is enhanced treatment of unstructured data, which Cambridge Semantics dubs "unstructured data 2.0."

Anzo's workflow was rearchitected from an embedded to a distributed architecture, which provides better workflow and work process management. This also enables Anzo to scale for larger data integrations at faster speeds, which is especially beneficial for very large, distributed companies, such as those Cambridge Semantics works within the life sciences, financial services, and manufacturing industries.

Anzo's user interface design was redesigned and optimized to simplify onboarding unstructured data, making it easier for business users to work with the platform.

"Our Anzo enhancements come at a time when the market for our technology is exploding," said Sean Martin, CTO and Co-founder, Cambridge Semantics.

"Graph models and unstructured data are becoming better understood and more readily adopted, and more of our customers now understand the value of diverse unstructured data and how to work with it.

The newest version of Anzo includes several additional updates, including improved automation in onboarding workflows, query builder enhancements, new administrative monitoring tools, and a beta version of Kubernetes-based GraphMart's cloud deployment powered by AnzoGraph DB.

http://www.cambridgesemantics.com

A NAS designed for Web scale

Cohesity has announced Cohesity SmartFiles, a software-defined storage solution for a variety of workloads including collaboration and productivity apps, large-scale document management, life sciences and medical research, digital archives, and video and surveillance

It says this goes beyond traditional scale-out NAS (network attached storage) capabilities and empowers organizations to utilize integrated applications to bring intelligence to file-related IT infrastructure. SmartFiles also reduces storage costs with capacity efficiency and multi-tier data management capabilities.

One of the breakthroughs with SmartFiles is that applications built to support the NAS ecosystem are integrated within Cohesity DataPlatform. Available through the Cohesity MarketPlace, apps such as antivirus, file audit with anomalous access detection, and content search can all be run directly on the platform.

Traditional NAS implementations often require organizations to purchase and run separate infrastructure to accomplish these same tasks. This approach of bringing compute to the data reduces costs and complexity and makes it easy to extract value from data. It also means that as the storage cluster scales, so does the scale of the integrated applications.

https://www.cohesity.com/

Ensuring Worldwide eInvoicing Compliance With One Global Solution

By Emmanuel Olivier, Esker

Moving to e-invoicing is no longer an option for businesses, it's an obligation. Propelled by the goal of preventing tax evasion, mandatory e-invoicing legislation is on the rise globally, driving the transition from paper to electronic invoicing and archiving.

Latin America was the first to enforce the use of e-invoicing in the late 2000s, using the clearance tax audit system (real-time invoice verification by the local tax authority). In Europe, the EU Directive on e-invoicing and public procurement was put in place to make e-invoicing the predominant method of invoicing in Europe by 2020. To support this directive, many governments introduced legislations requiring vendors to send e-invoices to all public administrations (PA). Italy has gone even further to become the first European member state to mandate B2B and B2C e-invoicing for Italian businesses. Others seem willing to follow this lead.

The growing number of governments and corporations adopting e-invoicing means that companies need to send e-invoices if they want to do business and get paid. However, the increasing number of rules, formats, platforms and certificates brings a lot of complexity to compliance. And the time from when the requirement is published, to the deadline for businesses to comply is very short, while the number of regulations continues to grow. Efforts have been made to standardise public procurement and simplify document exchanges between companies and public entities, notably with PEPPOL; however, in reality, compliance remains highly complex. While it might be tempting to sit back and wait for deadlines to draw near, businesses must embrace the shift to e-invoicing or risk being left behind.

E-INVOICING ON THE RISE

"Overall, I believe e-invoicing volumes will grow each year for the next five years: 15% in Europe, 20% in North America and 25% in Asia. I foresee very strong growth rates, and I expect to see a positive impact from all these business-to-government initiatives in the private sector." - Bruno Koch, Billentis.

As more and more companies replace their costly paper-based invoice processes with less expensive and more efficient e-invoicing delivery and archiving solutions,they are discovering new ways to help increase their competitive advantage and business efficiency (e.g., reduced invoice-related errors, time and cost savings, faster payment, etc.). While e-invoicing is beginning to realise its potential, one of the reasons it has not been widely adopted so far is the confusion around aforementioned tax compliance.

ONE SOLUTION TO SEND E-INVOICES

Selecting a solution that's capable of meeting specific billing needs is vital for businesses. Companies that rely on multiple local services providers to ensure e-invoice compliance in different countries find it difficult to uphold rigid local specifications and manage numerous providers. Working with one provider and one solution is the pre-ferred way to go.

Five reasons to select a global e-invoicing solution:

■ Increase visibility: An international organisation, located in multiple countries, requires a solution that provides visibility over all invoices worldwide as well as on a sub-sidiary or entity-level. Multi-user solution access improves collaboration amongst accounts receivable (AR) teams.

■ Compliance with local regulations: Businesses must comply with different e-invoicing regulations in the countries in which they do business to avoid penalties, either by formatting their invoices into an XML file or finding a way to be connected with tax authorities' platforms to submit their invoices (e.g.,PEPPOL).

■ Anticipate future mandates: As e-invoicing regulations continue to evolve, businesses need to ensure that they are up to date on new requirements and able to quickly respond to changes.

■ Improve internal processes: Companies are always looking to speed up internal processes and improve team productivity, particularly in AR and accounts payable processes. By automating these processes, businesses can manage 100% of invoices regardless of format, reduce errors and costs associated with manual handling, and lower DSO.

■ Enhanced user experience: Solution user adoption rates are greater when only one solution is used.

ALL ROADS LEAD TO ESKER

Esker delivers and receives compliant customer and supplier e-invoices on a global scale. Esker is capable of processing different invoice formats (e.g., PDF, XML, UBL, Facturae, Fattura-PA, etc.), as well as communicating with different public administration platforms (e.g. Chorus, FACe, Billexo, SDI, PEPPOL, etc.) to send and receive e-invoices and provide visibility on invoice status.

Through its partnership with Sovos TrustWeaver, a leading e-invoicing compliance expert, Esker's cloud-based platform helps businesses achieve global compliance in whatever technology they choose (e.g. e-signatures, time stamps and verifications in over 60 countries, BCAT with Esker's audit trail and reporting capabilities or EDI), as well as provide e-invoice archiving that's compliant with local and international regulatory frameworks.

Esker has proficient technological and local market knowl-edge to adapt its solution to evolving legislative require-ments and help businesses navigate the complex universe of e-invoicing.

However, it's not just e-invoicing that is becoming mandatory. The evolving market trend toward full business automation with the government is on the rise. Some, like Italy, have started requiring businesses to re-ceive electronic orders as well. Esker's unique platform delivers the full scope of automation across the purchase-to-pay and order-to-cash processes and can support the global movement to standardise exchanges between the private and public sectors.

https://www.esker.com.au/

Kapish launches goTRIM Pro

Kapish has released goTRIM Pro 3.0, a complete re-write of the existing goTRIM application for mobile users of Micro Focus Content Manager (CM).

Now offering the same range of features on both Android and iOS, the new user-friendly interface allows for quick and easy record searching, providing multiple search options including the ability to browse via the Record Classification Scheme and direct access to user Favourites. It also provides users with the ability to edit Microsoft Office documents and annotate PDF files from the device.

Developed using the Content Manager Service API, goTRIM Pro follows standard CM authentication rules and enforces your existing business rules; ensuring user permissions and record security are maintained.

Integrating with your CM implementation, goTRIM Pro detects and displays a user's existing CM shortcuts including Recent Documents, Favourite Records and User Label selections (e.g. Due Trays).

New Check In Options provide the same three options provided in Content Manager on your mobile device.

The latest release also delivers further security enhancements around device lock out, storage of User Credentials, and removal of Offline Data. It is compatible with Micro Focus 9.1 onwards and a new Configuration Web site has been added for Administrators.

http://kapish.com.au/products/gotrim/

Teams gets compliance fix

Australian solutions provide FYB has launched a new Teams2CM connector to enable Content Manager users to upload information to and from Teams, Microsoft's cloud-based team collaboration software.

Teams is based on Office365 Groups so many organisations have little control over how it is deployed. With more than 13 million users worldwide by July 2019, Teams enables business messaging, calling, video meetings and file sharing.

Having used Microsoft Teams for over a year, in order to learn the best way to deploy and implement the solution, FYB concluded there has been no framework for governance put in place around its use. This means corporate records that should be stored in an organisation's EDRMS are being uploaded, created, and even shared within Teams.

Failure to address this issue is exposing organisations to the same issues exposed by storing information in network drives, with data stored in silos and no governance, retention or lifecycle management.

If we move forward 10 years, this issue migrated to SharePoint, which also allowed organisations to silo information, have no retention or lifecycle management policies, and meant that information stored therein really added little to no value to the organisation.

For this reason, FYB set about developing a connector between Microsoft Teams and the Content Manager

EDRMS so that organisations can continue to take advantage of all the fantastic benefits of Teams, whilst ensuring corporate records are being captured into Content Manager.

The Teams2CM connector also provides an added benefit to organisations, as it provides an alternative interface to Content Manager, meaning some users may never need to go into Content Manager again, instead they would access relevant documents and records through the Microsoft Teams application.

The connector is available to Microsoft Teams and Content Manager users on an annual subscription. For more information or demonstration of the product contact FYB.

SQL Server to support PDF/UA

Microsoft has announced forthcoming support for PDF/UA, the ISO standard for accessible PDF, in its core SQL Server 2019 Reporting Services product.

Accessibility requirements continue to grow, not only in the public sector, but also for many more large-scale businesses, including customers of Microsoft's broadly-adopted SQL server products. PDF/UA is a critical element in ensuring PDF files meet the highest standards for accessibility.

Some wonder how a reporting engine might be used when accessibility requires human validation to ensure accessible results. With a reporting engine designed to accommodate accessibility needs in PDF output, users can perform all necessary validation in the template development phase.

Once output from templates has been rigorously tested for accessibility the server can generate large volumes of fully accessible output documents in a completely automated fashion.

Microsoft's SQL server application is not the first enterprise-class report generator to support PDF/UA, but it is one of the most visible.

Instant Automated Workflows

Nintex has launched a new Workflow Generator product which enables business users to instantly create sophisticated workflows using the cloud-based visual process mapping capability, Nintex Promapp.

Nintex Workflow Generator requires no coding and is a powerful new onramp to the automation capabilities of the Nintex Process Platform. This new feature is currently available to customers and partners with subscriptions to Nintex Promapp and Nintex Workflow Cloud.

In most enterprises, automation expertise is concentrated in the IT department, while departmental process knowledge is dispersed across line of business (LoB) functions such as sales, marketing, HR, and finance. IT often lacks a nuanced understanding of the processes that make the business run.

Meanwhile, the LoB experts responsible for completing those processes — many of which are still manual and paper-based — often are not empowered to harness the full potential of automation.

Nintex Workflow Generator uses natural language processing (NLP) to bridge the gap between process knowledge and automation expertise. The process expert simply uses Nintex Promapp to document a process, then clicks "Request Automation" to create a draft workflow and alert the IT department.

The workflow generator also simplifies communication between business users and IT, so workflows can be fine-tuned and continuously improved. The NLP engine uses feedback loops to steadily improve the accuracy with which it aligns process descriptions to standard workflow actions.
https://www.nintex.com/workflow-automation/process-mapping

Opex flies in 5 new scanners

OPEX Corporation has announced the addition of five scanners to the Falcon series of scanners.

The Falcon+ scanners are fully equipped to conquer the most difficult workflow challenges. They feature improved user ergonomics, seven standard Multi-Feed Detectors (MFDs), imagers capable of capturing at 600dpi, and a Thickness Measuring Device (TMD) override switch that, when applied, creates an open paper path for both thick and delicate items.

The Falcon+ and Falcon+ RED models are all pre-loaded with the latest version of OPEX software, CertainScan 5.0.

The Falcon+ RED family offers a complete digital mailroom solution in a single unit. Integrated with OPEX's state-of-the-art mail opener and extractor, the Model 72, the Falcon+ RED models are designed to handle a wide range of mail sizes and thicknesses. Utilizing the same advancements found in the Falcon+ models, the Falcon+ REDs are equipped to digitize the mailroom.

"The new Falcon+ scanners keep OPEX at the forefront of the digital revolution, optimizing efficiency for a wide range of industries and challenges. Our versatile feed and sorting system, capable of scanning wide ranges of media without document prep, has truly revolutionized the scanning process," said Alex Duncan, Marketing Coordinator at OPEX.

"A rich complement of software tools, work with Falcon+ to allow you to fully transform digital challenges into reliable, consistent workflows."

www.opex.com

Oracle and Box Team Up

Oracle is introducing the ability for users to connect their cloud and on-premises Oracle and third-party applications with Box via Oracle Integration. Through this integration, enterprise customers will be able to seamlessly connect applications with Box as their unified cloud content management layer to power secure collaboration and workflows around their most valuable content in the cloud.

"We see time and time again that customers are demanding a single source of truth for all their content needs," said Suhas Uliyar, vice president, Digital Assistant and Integration, Oracle.

"Now customers can be sure that they can access their business-critical content across all applications and help ensure it is synced with Box. This dramatically reduces the time and effort spent on reconciling content versions across various business processes and will allow teams to focus on creating new innovations."

The new Box connector for Oracle Integration will allow IT teams to easily integrate on-premises and cloud applications with Box.

For example, HR teams will be able to deploy workflows to automatically create Box folders whenever new employee records are added to Oracle PeopleSoft, streamlining the onboarding process and eliminating time-consuming manual work.

Similarly, finance teams will be able to accelerate external collaboration by automatically pushing invoices generated from Oracle Cloud ERP into Box to share securely with vendors. The Box connector for Oracle Integration enables IT teams to bridge content in the cloud and mission-critical systems, ultimately creating more efficient processes for line-of-business teams.

XMedius updates Fax over IP

XMedius has launched XM Fax 9.0, the latest version of its r Fax over IP (FoIP) software. The new version delivers features designed to further improve the security, scalability and reliability of electronically transmitted data.

Computer-based messaging has changed the face of enterprise communications – however fax still plays a critical role in major business sectors around the world, including healthcare, education, government, finance, legal, manufacturing, and more. In fact, the use of fax as a means of secure communication is growing in popularity: according to a recent IDC survey, 82% of respondents said fax usage increased over the past year.

This is in large part due to the fact that fax communication is a more secure method of sending sensitive information than standard email – which can easily become compromised or land in the wrong inbox.

XMedius has enhanced its XM Fax solution to bring a diverse set of benefits, including:

■ Enhanced Security: Configurable password policies, encryption at rest for fax documents, hardened TLS configurations, and support for TLS 1.3 have been added to the new version.

■ Improved System Integration: Customised fax properties can be edited at any point in the lifecycle, allowing further integrations and workflows. IPv6 support is now available, enabling seamless integration with various enterprise network types.

■ Enriched User Experience: Users can now share their web phone book with SendFAX, preview faxes before sending them in the web client, and unlock XM Fax mobile app capabilities (iOS and Android).

■ Augmented Administrative Tooling: Administrators can now take advantage of single sign-on (SSO) in the administration interface, manage fax box delegations, and have better control over OCR management.

www.xmedius.com

Epson's speedy scan duo

Epson Australia has expanded its workgroup document scanner portfolio with the new WorkForce DS-970 (pictured) and DS-870, its fastest-ever colour duplex document scanners designed for busy and high-volume offices of any size.

Epson's first 85ppm/170ipm document scanner, the DS-970 (RRP $A1,799) offers a peak daily duty cycle of up to 9,000 sheets, while the new DS-870 (RRP $A1,499) scans as fast as 65ppm/130ipm with a peak daily duty cycle of up to 7,000 sheets.

A 100-page Automatic Document Feeder provides high-volume batch scanning and can also handle mixed stacks of business and ID cards, long documents and folded pages up to 11" x 17" (A3).

Using advanced paper feed technology which includes Slow Speed Mode for delicate sheets, Double-Feed Detection and Paper Protection to prevent misfeeds, the DS-970 and DS-870 allow the user to conveniently scan important documents hassle and worry-free.

Equipped with an LCD screen for easy navigation and mode selection, the DS-970 and DS-870 come with advanced TWAIN and ISIS drivers for seamless integration with existing third-party document management software.

Users can choose from the optional Network Interface Unit to share the scanner across a network or optional Flatbed Dock to connect to a compatible Epson photo scanner for scanning photos, passports, or bound materials.

Both scanners include a three-year limited warranty.

www.epson.com.au

eQuorum unveils ImageSite 10.3

eQuorum has announced major new features in Version 10.3 of ImageSite, its workflow and document management Solution for manufacturers, architects, engineers, utilities, universities and government.

All features are also incorporated into Engine-Box.com, eQuorum's cloud-based SaaS workflow and document management solution.

Major enhancements in ImageSite 10.3 include:

■ Digital Signatures: A user can now add a micro-encrypted digital signature to a document and/or its markups. Markups can be digitally signed on a per-page basis and signatures can also contain comments. This signature guarantees authenticity and content and can be used to demonstrate approval. It is also an assurance to other system users that the document or its content has not changed since it was signed. This is better and faster than an e-signature as it does not require the system to query another system outside the corporate firewall, usually on the Internet.

■ Notes: One or more note threads – comments and other information about the document – can be added to a document. Multiple threads, by user, can be applied to a document. The author of a thread can be emailed by another user using the Notes Email functionality.

■ Viewable custom fields: Users can now add any custom field to the viewer, per document. Any number of custom fields can be included, in any order, by a user.

■ Markups: The markups tool has been made easier to use on mobile devices, with a completely new tool palette. The palette can be dragged to anywhere on the edge of the drawing canvas and contains full flyout entries for easy selection on mobile devices.

■ Transmittals: Displays separate tabs for Info, Email, Confirmation Log, and Change Log. This includes the display of all incoming and outgoing emails associated to transmittals, including attachments on incoming email. The Confirmation tab displays the status of transmittals and if there is a confirming email. Transmittal-related email exceptions (like bounces) are now handled with a Bounced button that displays all transmittal exceptions.

https://www.eQuorum.com/

30TB LTO tape cartridge

FUJIFILM has released the LTO Ultrium8 Data Cartridge (LTO-8) for backup and archive of large-capacity data with a storage capacity of 30TB (12TB for non-compressed data), twice the capacity of the previous generation.

It is also capable of transferring data at 750MB/sec. (360MB/sec. for non-compressed). With its ability to provide secure and long term storage of massive data at a low cost, LTO-8 responds to the increasing demand for data storage.

As well as offering large storage capacity, low cost and long-term storage performance, magnetic tape create "air gap" data protection, physically isolated from the network, which minimise the risk of data damage or loss caused by cyber attacks.

With LTO-8, Fujifilm has further developed its "NANOCUBIC technology" to produce even smaller BaFe magnetic particles than those used in LTO-7. The magnetic particles are separated by highly controlled dispersion process and the tape surface roughness is controlled, achieving smooth surface of magnetic layer with enhanced NANO coating technology.

In this way, Fujifilm has increased the storage capacity up to 30TB. Furthermore, appropriate material design has allowed for high tracking performance and durability for the magnetic heads in the tape drives.

https://www.fujifilm.com.au/

NSW council re engineers workflows with Kodak Alaris and Go Systems

Kodak Alaris partner Go Systems counts many local councils across New South Wales amongst its client base. In partnership with Kodak Alaris it has designed a technology roadmap for one of the state's largest councils utilising its capture hardware and software solutions.

The council's Electronic Document Management (EDM) department is staffed by three full-time people. The team is supported by other employees who are on rehabilitation from various injuries who help out with the most time-consuming element of digitization - data prep.

The EDM team is charged with digitising all paper-based documents created across all de-partments – from financial records, development applications, childcare centre files, to HR files, staff timesheets and rotas, through to planning applica-tions.

Volumes continue to increase year on year and the biggest challenge is that there is little sign of this trend abating in the immediate future.

In recent times, there has been a property boom in the region, and this has resulted in a surge in development applications. These files are typically very large, stored separately and sent in their entirety to be digitised once approved.

With rooms packed full of boxes to be scanned, keeping on top of the day to day scanning is a challenge, so much so that outsourcing to various bureaus is a pre-requisite.

The department head is consumed by keeping on top of daily workflow and as such relies on ongoing consultative support from Go Systems to ensure the operation continues to leverage best-in-class technology to stay ahead of the game.

The council has a fleet of eleven networked Kodak Scanners. This includes two i2600 and i3200 Scanners, three i3400 and i4200 models, as well as one i1440 Scanner, running with Alaris Capture Pro Software Network Edition.

In addition to the scanners installed in the EDM, other scanners are also located in off-site locations where they are utilised for specific tasks such as within the accounts payable function.

Capture is shifting from scan to archive, to scan to process, in support of this, the council recently migrated to the TechnologyOne Enterprise Content Management (ECM) platform.

Go Systems worked with the council, to automate and streamline workflows, enabling information to be scanned directly into pre-defined folders, stored in line of business (LoB) applications, used and managed from any device, anywhere and anytime.

With a small team and an ever-increasing workload, ensuring maximum efficiency and productivity within the EDM is essential in order to ensure successful digital transformation. An annual support agreement, which includes up to two pre-emptive site visits by a qualified engineer, ensures maximum uptime.

The ability to feed mixed batches, without worrying about lower throughput speeds or consistent, high quality output, is also saving time spent manually pre-sorting documents.

The EDM department handles documents of different sizes and formats from onion paper, carbonised delivery documents and everything in between to A0.

Image quality is a high priority, a requirement that led the team to migrate from a multi-vendor fleet to one that now only comprises Kodak Alaris scanners. There is so much paper to process that it also uses bureaus, however as consistency of quality is key, it only outsources to bureaus that operate Kodak Alaris fleets.

Prior to switching to a fleet of Kodak Alaris scanners, the council was frustrated, having to deal with paper handling issues, legacy models not capable of dealing with the desired throughput, ease of managing the scanned documents and inadequate quality of images captured.

Using the Kodak Alaris scanners, once paper has been prepared, scanning into business applications is very fast and effective. Thanks to their image quality, the scanners have significantly cut the number of documents that require rescans and manual operator interventions, which costs both time and money.

The ability to feed mixed batches, without worrying about lower throughput speeds or consistent, high quality output, is also saving time spent manually pre-sorting documents.

Thanks to best-in-class capture technology and the ability to process and route information across various systems quickly and accurately, the council has been able to lower the cost of the scanning process as well as end-to-end processing times.

Capture Pro Software enables batches of paper to be quickly converted into high quality images and offers robust data extraction and seamless delivery to business applications

https://www.alarisworld.com/en-au

Mobile Barcode Scanners

Socket Mobile has announced today a durable barcode scanner series – the D800, D840 and D860 – for users who want to advance their mobile scanning options with drop protection and improved charging options.

The DuraScan 800 series was designed for today's mobile world, which requires durability and a long battery life. Maintaining a compact size for usability, the series is resilient against drops and bumps with its outer rubberized casing. The small, thin size is designed to be attached to a mobile phone or tablet during the working day and can be easily removed and charged when your shift is complete.

Alternatively, it can be used as a stand-alone device in conjunction with a mobile phone or tablet, and easily fits into your pocket. The D800 Series is ideal where devices are often dropped onto concrete floors – warehouse management, general inventory management, sales orders and field services.

The D800 series scanners are 100% compatible with all existing applications that use the Socket Mobile Capture SDK. The entire DuraScan 800 family of products read barcodes on both mobile phone screens and paper. The D800 scans 1D barcodes; the D840 is an omni-directional reader for 2D/1D barcodes; and, the D860 scans omni-directional for 2D/1D, plus DotCode, OCR and travel IDs.

The DuraScan 800 series will be available in bundles for individual users with a charging dock. There is also a deployment version for multi-user environments with the 6 Bay Charger.

https://austore.socketmobile.com/

GlobalSearch 5.0's new view

Square 9 Softworks, a developer of process automation solutions, has announced the latest release of its Enterprise Content Management software, GlobalSearch 5.0.

Completely re-engineering the document viewer, Square 9 introduces an enhanced user experience, while delivering new tools for increasing office productivity.

Some of the newest features include; enhanced image quality, annotating records, adding digital signatures to documents, keyboard shortcuts and an all-new Task panel that provides a single place for any work residing in GlobalSearch Queue that requires your attention.

The most significant contribution to this release is the re-engineered document viewer, with a more functional and dynamic interface for our user community to interact with. The new viewer has the ability to reorder pages through dragging and dropping of thumbnails, with functionality to easily insert, delete and replace pages.

GlobalSearch 5.0 also introduces a wide variety of shortcuts for the document viewer that benefits users who prefer to keep their hands on the keyboard. Instead of navigating a mouse or touchpad when working with documents, users can select multiple documents and merge them into a single record with ease.

http://info.square-9.com/globalsearch50-whats-new

Content Manager 9.4 Breakdown

By Kapish

There's always a lot of anticipation around the latest release of Content Manager (CM), so solution provider Kapish has taken the opportunity to review CM 9.4 and highlight the key new features below.

These include:

■ Email notifications can now be sent to new record assignees.

■ A new search method called Search String is available on the CM search toolbar.

■ A new task to manage associations for a tagged list of locations is now available.

■ It is now possible to copy the access controls from a container. This is available in the Security Access – Custom Dialog.

CM can now send email notification to action assignees just before an action is due to start. Check the new System Option on the workflow tab.

Search controls have been added to the object selection dialog to make searching for records and other objects even easier.

Finding the right search method is even easier. The dropdown list now contains all the search methods and the search methods match what you type are shown with the matches in bold.

Content Manager Dashboard. This window shows your work items divided by how overdue they are. Simply click on a cell to get the list of those overdue work items.

Content Manager Explorer. This window lets you browse the main objects and display the records attached to those objects.

You can now create up to 10 custom user types, in addition to the 6 standard user types available. These custom user types are associated with locations in the same manner as the standard user types.

A new dialog to customise multiple view panes have been added. This allows you to add a property to any number of record view panes. Or you can add a view pane from a particular record type to any other record type.

A number of UI improvements have been made to Content Manager such as Search Options on select dialog forms including System Options and User Options.

Additionally, the System Options, User Options, and Record Type dialogs have been redesigned to include a navigation pane replacing the traditional tabbed dialogs.

https://kapish.com.au/

SafeGuard Cyber secures WeChat

SafeGuard Cyber has announced a new capability to secure conversations in WeChat, providing security and realtime compliance protection for businesses that use the mobile messaging application.

WeChat now has more than one billion daily active users, approximately 80 percent of whom use it for business purposes. Western companies have found WeChat to be a de facto requirement to do business in China, using the app to communicate with local suppliers, employees and customers.

However, the lack of scalable visibility into the app creates enterprise exposure to compliance risks and employee exposure to cyber threats, such as malicious links. A system of record is vital for U.S. and other Western companies to maintain compliance with SEC, FINRA, HIPAA and even Chinese regulations.

SafeGuard Cyber's new capability adds significant enhancements to its previous coverage of WeChat. By integrating WeChat into its NextGen Compliance platform, SafeGuard Cyber's customers will now be able to apply realtime policy monitoring and automated archiving and retention to enterprise WeChat conversations.

Additionally, employees will be protected from malicious content.

Once authorized by the account owner, SafeGuard Cyber's platform can capture all data that is sent and received – including deleted content – via WeChat, including recipient names, direct message conversation threats and a variety of content types, including emojis, videos, audio messages, files and shared contacts.

SafeGuard Cyber can also follow any posted links to external web pages, capturing both the content and screenshot of the page.

All content is fully indexed for search/discovery purposes and available for export. Further, the content can optionally be subject to tailored retention rules based on a company's needs. As a privacy-first organization, SafeGuard Cyber does not have access to any login credentials, and users must opt-in for protection.

https://www.safeguardcyber.com

iText DITO aids PDF workflows

iText Group has launched iText DITO, developed in order to reduce the time-consuming complexities that many developers face when creating and maintaining data-driven PDF templates.

iText DITO is a template engine built on iText's technology: iText 7 Core and its add-ons pdfHTML and pdfCalligraph.

It consists of a user-friendly browser-based application and a Java back-end. It enables seamless integration of HTML5, CSS, PDF 2.0 and global language/ligature sup-port into document workflows.

iText DITO allows anyone to design, configure and connect data from HTML input forms and PDF output templates, in any company house style, to the appropriate back-end data and logic, ensuring correct business results.

Modifications can be made to templates, without changing a single line of code.

"I am excited that we can finally show our latest innovation to the developer community. They will be pleased that iText DITO can reduce their development time of PDF templates by 70%, clearly a substantial time-saving solution for them and their company," said Raf Hens, Head of Technology at iText.

The applications of iText DITO are various: for instance, credit card statements, airline boarding passes, utility bills, application forms, medical records, invoices and many more.

https://itextpdf.com/en/products/itext-dito

Barcode Reader SDK Improves Decoding

Dynamsoft has released a new version of its Barcode Reader Software Development Kit with several new updates that include improved recognition rates for blurred or out-of-focus barcodes and improvements to barcode decoding from video, and more.

For all its Barcode Reader SDK editions, Dynamsoft further optimized its algorithms which has sped up the recognition process for 1D and 2D bar codes. This also further improved the accuracy of border localization and symbol segmentation for AZTEC barcodes.

And, accuracy has been improved for 2D barcodes without error corrections. Also, the DecodeBuffer now supports 48-bit and 64-bit image data. In addition, there is now a new download option where the SDK library does not include the libstdc++ library.

For the JavaScript Edition of the SDK, Dynamsoft added a built-in scanner constructor to support video settings.

With it, developers can create a video object to play, pause, stop, remove duplicates, and return a confidence level of barcode results for barcode reads from video. Other video settings are also supported.

This constructor is expected to greatly increases developer productivity. The JavaScript Edition now also offers IntelliSense support for the TypeScript scripting language. And, Dynamsoft added the UMS/ESM export option for Node.js.

Dynamsoft Barcode Reader SDK enables application developers to efficiently embed barcode reading functionality to their web, desktop and mobile applications using just a few lines of code.

This saves months of additional work in coding from scratch, in addition to the expense of doing so. With the SDK, end users can decode barcodes from various image file formats (BMP, JPG, PNG, PDF and TIFF). This includes from device-independent bitmap (DIB) formats which can be obtained from cameras or scanners.

Supported developer platforms include Windows (C, C++, .NET, ActiveX, JavaScript), Linux (C/C++), iOS (Objec-tive-C), and Android (Java). Supported 1D barcodes (linear barcodes) include Code 39, Code 128, Code 93, Codabar, Interleaved 2 of 5, Industrial 2 of 5, EAN-13, EAN-8, UPC-A, UPC-E. Supported 2D barcodes include QR code, Data-Matrix, PDF417, and Aztec code. There are also Mac and Raspberry Pi editions available as Labs projects.

http://www.dynamsoft.com

FineReader 15 powered by AI
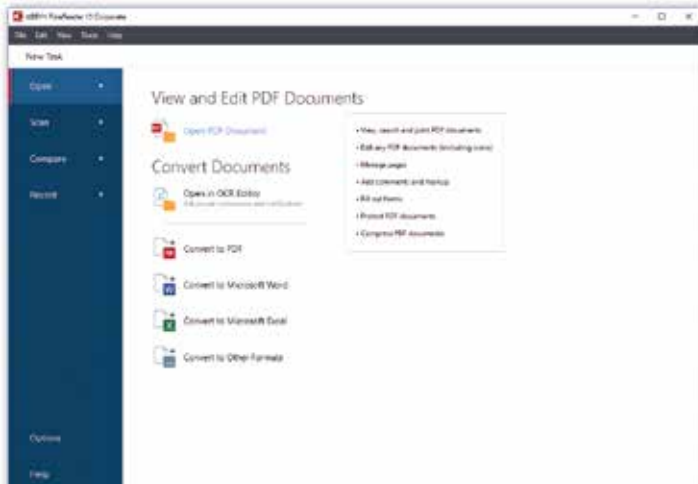
ABBYY has extended its Digital IQ technology platform with the release of FineReader 15, an enhanced version of its PDF application for Windows that is powered by ABBYY's AI-based text recognition technology.

The new FineReader 15 has received paragraph-level editing and layout adjustment in both digital and scanned PDFs, significant improvements in text recognition and documents comparison quality, faster viewing, and easy deployment with modern virtualization solutions.

Thanks to the newly received paragraph-level editing and layout adjustment, FineReader 15 makes editing PDFs almost as easy as DOCX documents: text flows smoothly from line to line, while paragraphs and pictures can be rearranged to adjust the overall layout.

The new way of exporting document comparison results as a Microsoft Word document with differences shown in the "track changes" mode make collaboration easier, document workflows smoother and faster.

FineReader 15 boasts even more precise analysis and conversion of tables, better automatic tagging for PDF and PDF/UA creation, and better detection of headers and footers. The application also offers intelligent detection of text-layer quality for digitally created PDFs allowing for more accurate results when converting digital PDFs into editable formats or comparing documents.

Additionally, it delivers up to 55% faster PDF document viewing and opening as well as even higher OCR accuracy: up to 98% overall accuracy for Korean and Chinese, up to 97% for Japanese.

ABBYY FineReader 15 offers accessible tools to collaborate, edit, and reuse digital and paper documents efficiently, thus improving communication and performance in a digital workplace.

To promote a digital working environment, the PDF application also addresses pain points from paper-based workflows such as highlighting, commenting, signing, stamping, redacting, comparing versions, collecting feedback and more.

FineReader 15 is available in Standard ($US199) and Corporate ($US299) versions as well as in volume licensing options for organizations.

www.abbyy.com/finereader

BA Insight integrates NLP

Enterprise search developer BA Insight has announced availability of AutoClassifier 5.0, which includes Natural Language Processing to automate extracting key information from documents. The information is then used to generate summaries and categorize and tag all of your enterprise information, including images and videos.

This automation decreases reliance on taxonomies, and when taxonomies are used, AutoClassifier 5.0 employs Machine Learning for taxonomy training to fully automate the tagging process.

When used in conjunction with SmartHub and the company's 70+ connectors, the combined products provide a complete AI-driven and search engine independent enterprise search solution for organizations of all sizes.

Natural Language Processing includes:

■ Entity Extraction. Automatically generates a list of key ideas to be used for search refinement and to identify similar documents.

■ Document Summary Generation. Automatically summarizes all types of unstructured content so that users can quickly understand the meaning of search results.

■ Sentiment Analysis. Detects the tone in which text is written to determine if it is positive, negative, or neutral.

■ Language Detection. Tags content with the language in which it is written.

■ For Taxonomy Training, Machine Learning is used to analyse sample documents associated with taxonomy nodes and create training sets, which are used to automatically tag content. Machine Learning-based tagging can be used either in conjunction with or in place of Rules-based tagging so that it can be optimized for each use case.

www.bainsight.com

Library search smartens up

Civica has built a cloud-based AI infused library search and management platform, leveraging technology first developed by Microsoft to search and interpret all the documents associated with the death of President Kennedy.

Civica has enhanced its Spydus Library Management System so that it can ingest a wide variety of content, including photographs, documents, newspaper clippings and letters – then using Microsoft Azure Cognitive Services make that easily searchable and accessible.

Civica's Spydus, already widely used to manage the day-to-day operation of more than 2,000 public library services in Australia, New Zealand, Singapore, US and the UK, has been transformed by AI.

The digitised and AI-infused solution also increases the accessibility of information for hearing or vision impaired users who can benefit from the accessibility and access tools that are available in the Azure platform.

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