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Kendra aims to reinvent Search

As part of a series of new machine learning initiatives at Amazon Web Services (AWS), Amazon has launched a service called Kendra that uses natural language processing and other machine learning techniques. It aims to unite multiple data silos inside an enterprise and consistently provide high-quality results to common queries instead of a random list of links in response to keyword queries.

"Despite many attempts over many years, internal search remains a vexing problem for today's enterprises, and most employees still frequently struggle to find the information they need. Organizations have vast amounts of unstructured text data, much of it incredibly useful if it can be discovered, stored in many formats and spread across different data sources (e.g. SharePoint, Intranet, Amazon S3, and on-premises file storage systems)," the company states.

"Even with common web-based search tools widely available, organizations still find internal search difficult because none of the available tools do a good job indexing across existing data silos, don't provide natural language queries, and can't deliver accurate results. When employees have questions, they are required to use keywords that may appear in multiple documents in different contexts, and these searches typically generate long lists of random links that employees then have to sift through to find the information they seek – if they find it at all."

Amazon claims that Kendra reinvents enterprise search by allowing employees to search across multiple silos of data using real questions (not just keywords) and deploys AI technology behind the scenes to deliver the precise answers they seek (instead of a random list of links). Employees can run their searches using natural language (keywords still work, but most users prefer natural language searches). As an example, an employee can ask a specific question like 'when does the IT help desk open?', and Amazon Kendra will give them a specific answer like 'the IT help desk opens at 9:30 AM', along with links back to the IT ticketing portal and other relevant sites.

Amazon Kendra can be deployed across applications, portals, and wikis. Via the AWS Management Console, users can point Amazon Kendra at their various document repositories and the service aggregates petabytes of data to build a centralized index. Kendra helps to ensure that search results adhere to existing document access policies by scanning permissions on documents so that search results only contain documents for which the user has permission to access. Additionally, Amazon Kendra actively retrains its machine learning model on a customer specific basis to improve accuracy using click-through data, user location, and feedback to deliver better answers over time.

Caution urged for AI investment

The massive amounts of hype and promise surrounding AI and related technologies like machine learning and deep learning, is preventing organisations from making critical innovation and investment decisions, according to a new report from research and advisory firm Lux Research.

Titled: "*Artificial Intelligence: A Framework to Identify Challenges and Guide Successful Outcomes,*" the report by advisory firm Lux Research looks at the current state of artificial intelligence.

The report warns that taking a technology-first approach (e.g., selecting a vendor simply because they claim to use the latest AI techniques) has led and will lead to many failed companies and projects.

"[In the past] researchers used everything besides the term AI to describe what they were working on; today, everything from a grammar checker to a stock trading application is called AI. "Today's breed of AI techniques is particularly well-suited for pattern recognition tasks. Opportunities exist to leverage this capability, whether for scaling basic human pattern recognition capabilities, emulating expert pattern recognition, or uncovering patterns in data too complex for a human to recognize.

"As the environment and data get more complex, however, the maturity of today's pattern recognition AI decreases. Tasks that move beyond pattern recognition to tasks that typically require long-term human reasoning to accomplish tend to be more immature or significantly limited in the complexity of environments they can handle," the report's authors warn.

The report cautions against investing too early in applications that require more advanced AI capabilities, because it said they are often too immature and untested.

Appian makes RPA acuisition

Appian will add RPA capabilities to its low-code automation platform following the acquisition of Novayre Solutions SL, developer of the Jidoka RPA platform.

According to Forrester, the RPA market is expected to reach $US12 billion by 2023, but many organisations are still in the early stages of their RPA journey.

Appian says robots are often deployed in silos without effective human oversight, creating management challenges. CIO concerns about robot security and governance have also limited the growth of RPA for larger-scale use cases. The company says it will unify low-code development and RPA in one comprehensive automation platform, enabling the orchestration of all three agents of modern work -- humans, bots, and artificial intelligence. Appian's case management capabilities are included, so if robots create errors or exceptions, humans are involved in-the-loop to quickly make corrections.

Appian promises to deliver RPA governance so organisations will be able to manage robotic workforces from major RPA vendors, including Blue Prism and UIPath.

The business interfaces for managing robots -- including monitoring, scheduling, and reporting -- are available on both the web and mobile devices.

"Appian is extending our lead in low-code automation by adding RPA," said Matt Calkins, CEO, Appian. "Together, the products enable end-to-end process orchestration where humans, software robots, and AI all work together in a coordinated way."

"Our shared vision for automation makes this a natural fit for Novayre. By joining forces with Appian, we will make it easier for companies to adopt and deploy RPA at enterprise scale," said Víctor Ayllón, CEO of Novayre.

Financial terms are not being disclosed.

Alliance Bank gets CX boost from Ephesoft

Alliance Bank Malaysia Berhad, a bank well known for serving Malaysian small and medium enterprises (SMEs), has implemented Ephesoft Transact for intelligent capture automation in their middle-office operations.

"Ephesoft is able to meet our requirements and is versatile to scale with us as we continue to transform our business processes to deliver faster, simpler and more responsive customer experience to our clients," said Mr. Joel Kornreich, group chief executive officer of Alliance Bank.

Ephesoft's document classification module of patented machine learning algorithms helps ease the bank sales staff's workload. The software is able to bulk-scan the supporting documents, and re-categorize them within the Alliance Origination System, the bank's proprietary credit automation.

"With this improvement, we have the capacity to quickly identify and manage any potentially fraudulent activities based on customers' transactional behaviour," added Mr. Kornreich. "We also use the information to perform financial casting to understand our customers better, and due diligence in assessing customers."

Financial Services organizations typically have high-volume, high-value documents, which can be manually intensive if they are not automated.

"We are proud to be an agile and scalable enterprise data acquisition partner for our customers as they work to solve document and data challenges in their digital transformation journeys," said Ike Kavas, founder and CEO at Ephesoft.

"Ephesoft's machine learning-powered software enables Alliance Bank employees to accelerate tedious processes and use their time to bring value to the organization in strategic ways that provide a competitive advantage."

Kodak Alaris wins 2020 Scanner Award

Buyers Laboratory (BLI), an independent evaluator of document imaging hardware, software, and services, has awarded Kodak Alaris its 2020 Scanner Line of the Year award for the fourth time in five years.

To determine the Scanner Line of the Year award recipient, BLI analysts consider current scanners in the OEM's line that have been submitted to BLI's lab for testing. To judge the overall quality of the line, the analysts look at the overall rating a scanner received after testing, as well as the ratings in key categories such as Reliability, Productivity, Media Handling, Image Quality, Ease of Setup, Drivers/Utilities, OCR Performance, and Value.

"Kodak Alaris is by far the most-awarded scanner manufacturer in BLI's 62-year history, with 30 Pick and Outstanding Achievement awards along with the five Line of the Year honors," said Don Lofstrom, President and General Manager, Alaris, a Kodak Alaris business.

US law firm latches onto cleanDocs

Seattle-based law firm Lasher Holzapfel Sperry & Ebberson has purchased cleanDocs for server-based metadata cleaning. cleanDocs server will enable the firm to minimize the risk of an email data breach by covering all email exit points, including those sent from mobile devices.

Tonya Gere, Systems Administrator at the firm, said an upgrade from Windows 7 to Windows 10 was an opportunity to change metadata cleaning applications.

"We wanted metadata cleaning that would run on the server so as to not interfere with anyone working on the desktop," explained Tonya.

"At the same time, the firm needed to ensure all outgoing emails would be cleaned of metadata to prevent unintentional data breaches. cleanDocs server checked both those boxes by being the right balance of productivity and protection."

cleanDocs server protects anyone who sends emails from the desktop, mobile devices, Outlook Web Access, or any other email-enabled application by ensuring no hidden metadata slips through the cracks.

Bob Moore, DocsCorp VP of Sales, Americas, said demand for more robust data leak prevention solutions is only increasing as strict new data protection laws and regulations are enacted. "US firms are well aware of the risks of hidden metadata, but in the past 12 months, in particular, we've seen more and more of them replacing legacy applications with more powerful and user-friendly technology, like cleanDocs.

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Government hypes digitalised services, without addressing e–government fails

By Bruce Baer Arnold, Assistant Professor, School of Law, University of Canberra

In politics, when you have little to show for your achievements, you can release a "roadmap" for what will supposedly be achieved in the future.

You can look on the bright side. Use phrases such as "ontology of capabilities", and disregard a number of crashes, traffic jams, protests and policy detours. This is what we're seeing with the national government's Digital Transformation Strategy Update and subsequent planned two–year rolling roadmap, announced by Minister for Government Services Stuart Robert.

When the strategy was launched last year, it was described as offering a "clear direction" for the government's digital efforts over the next seven years. It would ensure Australia's place as one of the "top three digital governments" by 2025. It purportedly offers a "complete view of digital activities" occurring across national government agencies, in the form of a roadmap spanning the next two years. But if you're someone who interacts with government, it's worth asking questions about the basis of the strategy, and how Canberra communicates the often bumpy road to e-government.

E-government is a mantra, both a process and goal. In essence, it involves using digital technologies, notably the internet, to streamline interactions between government agencies and the public. Examples include payment of licences and taxes, business registration and allowance claims. And taking that activity online should force bureaucracies to take a hard look at how they operate.

Problems on the transformation highway

Overall, there are benefits for national productivity and the taxpayer in taking government online. Most of us love the convenience of getting rid of paper and queues.

However, we should ask whether government as a whole needs to lift its game in how it deals with the public when transforming, and how it develops its priorities. Those priorities need to be more than "we can do it", plus media opportunity. If we look at what's happening on the transformation highway, we might be sceptical about the value of the minister's roadmap.

The Digital Transformation Agency (DTA), the latest iteration of government re-engineering agencies since the Paul Keating era, was championed by Malcolm Turnbull. Without prime ministerial support, it has consistently underperformed in bureaucratic infighting. The Australian Taxation Office, and departments of human services, home affairs and defence have gone their own way. It has also been affected by churn among senior staff, including several chief executives.

Former DTA executive Paul Shetler damned the strategy as lacking substance. That is a valid criticism of the document and associated "roadmap" report, which presents isolated projects across government as proof of a coherent strategy that is being delivered effectively.

In practice, digital initiatives originate and are implemented at department level. This reflects the authority and ambitions of individual ministers. It also reflects the imperatives of their departments and own agencies, administering statutory powers surrounding responsibilities such as migration, taxation and education. The strategy thus resembles the traditional agreement to agree (rather than a coherent central direction), where different ministers and departments will continue their individual plans, while merely paying lip service to a whole–of–government approach.

It's not something for which Robert can take much credit. And it doesn't acknowledge concerns about underperformance.

A challenging road

E-government has been a mantra in all advanced economies for the past 20 years. Australia has discovered the road to e-government is more challenging than the maps provided by consulting or ministerial media advisors. The expectation is that digital transformation will radically improve services to everyone who interacts with government. Ideally, it will reduce costs, increase consistency of services, and provide rich pools of data to enable smarter policy development.

It will get rid of paper, use large-scale data matching to detect criminal activity, and strengthen Australia's AI industry. The vision is founded on a innovative whole–of–government approach. In practice, it is a document with little strategy. It essentially bundles initiatives "owned" by different ministers and put into action by separate departments in fierce competition for funds. We need to look beyond a roadmap in which the government (and minister) claims credit for initiatives that are episodic, rather than strategic. Government doing what it's meant to do, working smarter for us, is not a cause for celebration.

Transformation for whom?

"Transformation" has produced some clear winners, independent of the strategy. Commercial service providers have done well out of each department's programs. Transformation has been great for the likes of SAP, ORACLE, KPMG and Amazon Web Services: large multi–year contracts for system design, maintenance and connectivity. Has it been great for you and me in terms of value for money, respect and good governance?

In looking at the roadmap, remember CensusFail and billion–dollar e-health project, which faced consumer backlash. What about the misery–causing RoboDebt initiative damned by the Federal Court?

The national auditor recurrently criticises inadequate e-government planning such as a biometric scheme damned as "deficient in almost every significant respect". Benefits for citizens through interagency data sharing do not include greater government accountability. That's unsurprising, given the government's hostility to freedom of information requests.

The e-government vision requires learning from mistakes. Sadly, that's ignored by the strategy.

This article is republished from The Conversation.

The dangers of electronic signatures – can you prove who signed?

By Scott Hay-Bartlem

It has become increasingly common for documents to be signed electronically. This can be a very convenient way of signing and storing documents.

However, there are more and more cases where electronic signatures are being challenged, and documents being considered unenforceable as a result. The issues are well demonstrated in a recent case of Bendigo and Adelaide Bank Limited v Pickard [2019] SASC 123.

The facts

The Pickards, through a family trust, subscribed for interests in Great Southern Group investments, and borrowed through Bendigo and Adelaide Bank. The Pickards were required to guarantee the borrowings.

The loan agreement and guarantee were signed on behalf of the Pickards and their family trust by Great Southern Finance Pty Ltd under a power of attorney.

The directors of Great Southern Finance Pty Ltd signed the loan agreement and the guarantee electronically. The evidence was that the company's practice for document signing was that administrative staff, not the directors, physically affixed the signatures. The directors could not prove they authorised the administrative staff to physically affix the signatures on their behalf.

The decision

The Court decided that, as the directors of Great Southern Finance Pty Ltd could not prove they had authorised the signatures to be placed on the documents, they had not been properly signed, and therefore the guarantees could not be enforced against the Pickards.

The importance of systems and records

This case illustrates the risks with electronic signatures, and the importance of having systems in place to prove the person actually authorised the signing of the document electronically.

If important documents are being signed electronically, then records should be kept to show that the people signing were the ones who affixed the signatures, or the documents might be unenforceable and ineffective.

Scott Hay-Bartlem is a partner at law firm Cooper Grace Ward.

A LESSON IN TRANSFORMATION AT THE

University of Sydney

In the enterprise, no buzzword is as buzzy as the term "digital transformation". If you spend any amount of time reading whitepapers, analyst research, or attending webinars you'll see the term digital transformation used in conjunction with a wide range of enterprise–focused technologies ranging from data centres to application development, and enterprise architecture and AI and blockchain. But what does digital transformation even mean?

For the University of Sydney, digital transformation has been underway since well before the topic achieved buzzword status. With the Legal and Compliance division leading the way, the University has achieved a wide variety of process transformations by expanding the reach and utilisation of its record-keeping system, TRIM/Content Manager.

"Ten years ago, TRIM was a humble records system, but it is now functioning as an enterprise business system," notes May Robertson, University of Sydney Records Manager.

Robertson leads a team of 11 FTE staff in Records Management Services, a division of the University's legal and compliance portfolio. Australia's first University when it was founded in 1852, the University of Sydney now has over 70,000 students enrolled each year and taught by more than 8000 staff.

The management of information and records is complicated by the need to incorporate many affiliated research centres, clinical units and operations. In addition to building and implementing tailored record-keeping solutions and practice, Records Management Services is tasked with integrating with business systems as well as legacy system decommissioning and migration of records.

Micro Focus Content Manager 9.1 is underpinning a burgeoning deployment of automated information capture and digital workflows across the University campus.

TRIM, as it was known then, was initially adopted in the year 2000 for physical records management, while the journey towards electronic record-keeping commenced in 2006. By 2011 a tipping point was achieved with more than 70% of records captured electrically.

There are now close to 3,800 registered users across the University. More than 28 million electronic documents are registered in Content Manager (CM), with over 5 million of these captured in 2019. The portion of University records stored electronically has now reached over 95%.

Around 700 of the 3,800 CM users choose to use the native CM application. These are the power user contingent, while the

RECORDS MANAGEMENT

University has developed its own web interface since 2005 for faculty staff to look up student files and records, or for ad hoc saving of a document. This interface is commonly known as Records Online.

A Windows interface developed by INFORMOTION for TRIM, dubbed "Records Explorer", is used by staff that generate large amount of records, for instance Project Managers or Procurement Officers, and who like the ability to bulk save records to Content Manager.

Management of emails as business records has been recently enhanced with the deployment of InMailX, a compliance and productivity add-on for Microsoft Outlook and Office 365.

Digitisation solutions from Australia's EzeScan have been deployed at the University since 2008 and are now being utilised for automatic capture of electronic records into Content Manager, creation of new files and to kick off workflow items.

In addition to using Content Manager to create and manage files and documents, it is also increasingly being used as a business register. The first of its kind was the University Policy Register, established in 2013; followed by the University Property Register and Leasing Register. These registers use an extensive number of user-defined fields to describe each record, fully describing the University's corporate information and entities. In the case of the University's Policy Register, a set of user-defined fields are used to trigger the publication of policy documents to the University Web site or unpublish them from the Web.

"We also have taken full advantage of the workflow module for Content Manager. Bundling it with the Web form using the SDK and creating a Dashboard, we have not only successfully transformed business processes but also empowered the business with trends and insights," said Robertson.

Another important part of the workflow journey has been achieved through deployment of INFORMOTION's Fusion integration engine for Content Manager. INFORMOTION is an Australian solutions provider.

"Fusion encapsulates Content Manager's API coding which then allows business systems to interface with Content Manager without the need to understand its code base or communication rules," said Robertson.

"It eliminates the need to manage custom code every time a business application or Content Manager itself is upgraded as well as providing one place for rules for access control, retention and naming conventions. Fusion underpins the automation of record capture and management."

Underpinned by INFORMOTION's Fusion, there are now many Content Manager -based workflows supporting the University.

These have been deployed to ensure rigorous record-keeping is integrated into a wide range of critical staff and student processes including:

■ Examination incidents reporting and handling

■ Student complaints

■ A series of staff and HR case management related systems

■ Sexual assault and sexual harassment reporting

■ Declaration of external interest, outside earning and gifts

■ Student academic appeals (both Faculty and Student Appeals Body levels)

■ Executive Briefing Note submission and approval system

These processes are all now kicked off by Web forms that are able to consume staff and student information from University enterprise systems. Processing and handing are accomplished via Content Manager's inbuilt workflow module.

The workflows allow all information and documents to be captured as the workflow unfolds. It routes tasks and sends out the communication automatically.

An example of a dashboard for the Educational Integrity workflow system, providing insights the University never previously enjoyed.

"Work process analysis then gives us the insight to strategically collect necessary information from user input. The Web form does a look up and consumes further related data from the University enterprise service bus," said Robertson.

"For example, when a student logs into an academic appeals form, we already know their name and which faculty they are enrolled in and if they are a female or male or domestic or international student.

"The Web form (via Fusion) then talks to Content Manager via the SDK, and then goes off to create documents, create folders, verify, update or create TRIM locations, name the folder and documents, set access controls, set retention schedule, attach documents, and kick off a workflow item. It also assigns tasks, and in some cases performs checks in Content Manager to conduct a prior case search, produce a report and save it back to the relevant case file.

"Fusion does all this in the background with Content Manager just like a robot without you having to lift a finger," said Robertson.

From a humble beginning in 2010, Records Management Services has supported the transformation of more than 20 business processes at the University of Sydney, helping staff and students do their business in an automated and digital way, and at the same time taking care of record-keeping obligations

In 2019, the Records Management Services team received a Vice-Chancellor's Award for Excellence. Between April and November 2018, they initiated, planned and managed the development and on time delivery of five different workflow systems that transformed business processes across five areas of the University, and three of the systems have had enterprise-wide implementation

"Record-keeping is rarely seen as the glamourous part of any organisation but twice in the past four years the records unit has received Vice-Chancellor's Awards for Excellence. This is formal recognition that our efforts are having a positive and wide-spread effect on business processes and culture throughout the University," said Robertson.

The transformation journey at Sydney University could be de-scribed by three words: incremental, persistent and ongoing.

"There was no big bang approach. We just kept working at it, chipping away, and refining and improving as we go. It took 5-6 years before we reached a tipping point," said Robertson.

"There have been several attempts over the years to get rid of TRIM. The feeling of being on the edge helped us to grow from strength to strength, to the point that now we are in a position of using a record-keeping system to provide enterprise system capabilities."

Digital Ceiling halts Transformation: Infosys

Businesses globally face a "digital ceiling" when it comes to digital transformation, according to new research from Infosys Knowledge Institute (IKI), the thought ~leadership and research arm of Infosys. The study reveals that businesses must change their mindsets to achieve sophisticated levels of digital maturity.

Infosys Digital Radar 2020 assessed the digital transformation efforts of companies on a Digital Maturity Index and found year-over-year progress in basic areas, such as digital initiatives to improve a company's efficiency.

However, most companies come up against a "digital ceiling" when trying to achieve the most advanced levels of maturity.

The report, which surveyed over 1,000 executives globally, ranked the most digitally advanced companies as "Visionaries", followed by "Explorers" and then "Watchers."

Companies know how to achieve moderate transformation success, with an 18 per cent increase in companies progressing this year from the lowest tier of Watchers to the middle Explorer tier. However, Explorers struggled to move into the top Visionary cluster, with the top tier remaining the same, indicating a "digital ceiling" to transformation efforts.

The Visionary cluster remains unchanged despite companies reporting fewer barriers to digital transformation than last year.

Human, rather than technological, barriers are now the most persistent, with the two of the top hurdles being the lack of talent or skills (34 per cent) and a risk-averse corporate culture (35 per cent).

How to break through the digital ceiling?

The research demonstrates that top performers break through the digital ceiling because they think differently.

Firstly, successful companies focus strongly on people, using digital transformation to make improvements centred on customers and employees.

Most companies (68 per cent) across the spectrum stated operational efficiency and increased productivity as a main transformation objective. But successful companies in the Visionary cluster are particularly motivated to make improvements for their employees. Nearly half of Visionaries describe "empowering employees" as a major business objective for transformation, compared with less than one third of Explorers and less than one fifth of Watchers.

Likewise, Visionaries have an increased focus on customer centred initiatives, being significantly more likely than other clusters to undertake transformation to improve customer experiences and engagement and in order to respond more quickly to customer needs.

Secondly, successful companies have a different mindset when it comes to transformation processes.

Traditional linear transformations result in long transformation timelines, meaning a company's improvements are out of date by the time the process is complete.

Instead, top performers demonstrate a cyclical mindset, implementing recurring rapid feedback loops to accelerate transformation and keep updates relevant. The Visionary cluster is far ahead of others in digital initiatives tied to quick cycles: 75 per cent operate at scale in Agile and DevOps, compared with an overall average of 34 per cent for the entire survey group.

Businesses overestimate tech barriers

The importance of culture and a cyclical transformation mindset to breaking through the digital ceiling were underestimated by businesses last year.

In the 2019 Digital Radar report, companies were asked to predict the biggest barriers to their transformation progress for the following year. This year's Infosys Digital Radar 2020 compares these predictions to the actual challenges businesses faced in 2019.

Businesses reported dramatic declines in the impact that technological barriers have on their transformation progress, including:

- Inability to experiment quickly (down 49 per cent);
- Insufficient budget (down 40 per cent);
- Cybersecurity challenges (down 40 per cent).

However, businesses made much less progress against cultural barriers, including lack of change management capabilities (down 7 per cent) and lack of talent (down 6 per cent).

Progress across industries and geographies

The technology and telecom industries continue to rank highest on the Digital Maturity Index this year.

Consumer packaged goods, logistics, and healthcare achieved strong year-on-year improvements.

The report's anecdotes from executive interviews suggest that the adoption of telematics, the Internet of Things and smart medical devices contributed to these increases.

Likewise, the automotive industry placed fourth by digital maturity and featured the second highest percentage of Visionaries (30 per cent of those surveyed).

The insurance industry lags significantly behind other sectors, featuring the highest percentage of Watchers (17 per cent).

The digital ceiling was most dramatic in China, where 23 per cent of companies moved from Watcher to Explorer (which rose from 64 per cent to 87 per cent), but the percentage in the Visionary category (8 per cent) remained the same.

Survey Methodology

From November 12 to 30, 2019, Infosys used a blind format to conduct an online survey that attracted responses from more than 1,000 CXO and other senior-level respondents from companies with revenue greater than US$1 Billion.

Respondents represented multiple industries and hailed from Australia, Canada, China, France, Germany, India, New Zealand, U.K. and the U.S.
To gain additional qualitative insights, phone interviews were also conducted with a few practitioners and subject matter experts.

7 Ways Process Intelligence Enhances the Supply Chain

By Ryan Raiker

As supply chains become more global and complex, processes are becoming increasingly challenging to monitor and optimize. Identifying the root cause of inefficiencies can prove difficult without having a comprehensive view of operational workflows.

Process intelligence technologies optimize the order to cash process by providing a 360-degree view of all organizational processes in real-time – across disparate back-end systems, departments, teams, and locations. These advanced technologies enable supply chain leaders to easily identify where bottlenecks are occurring, measure vendor performance, streamline company operations, and enhance profit margins. According to a Deloitte study, the supply chain ranks as one of the highest priorities for digital transformation investments. However, many organizations have been slow to adopt new technologies. Process analytics platforms are a critical success factor in improving supply chain efficiency, speed and accuracy in a way that siloed, standalone systems cannot. Below are seven ways that process intelligence technologies can improve your supply chain operations:

1. Enhance profit margins.

Paying invoices on time or early can have substantial cost saving benefits. Timely invoice processing improves discount rates and, depending on the volume and size of the organization, could result in hundreds of thousands, if not more, in cost savings. For some supply chains, eliminating just one day of invoice processing time can save millions of dollars.

2. Identify the best suppliers.

Choosing the right vendors is a crucial component of a successful supply chain. Having a comprehensive view of your processes makes it easy to see which suppliers are the most timely, reliable, and responsive. Process intelligence makes it possible to accurately measure and track vendor performance by monitoring and identifying the following criteria:

■ Which vendors are the most effective at fulfilling orders in a timely manner

■ Which vendors are the most accurate

■ Pinpoint vendor issues at their root cause before they spread to other operations

■ Identify variations from vendor agreements

3. Fix process deviations in realtime.

Advanced process intelligence tools provide realtime alerts when processes deviate from the "ideal" path. Alerts can be configured for a wide range of scenarios including being notified when an order takes longer than X days to ship out, to being alerted if an invoice takes longer than X weeks to process. Alerts enable organizations to address process inefficiencies and variants before they become a much more significant (and more costly) concern.

According to a Deloitte study, the supply chain ranks as one of the highest priorities for digital transformation investments.

4. Track packages in realtime.

Process intelligence platforms provide timely, accurate monitoring of packages along every step from shipment to delivery. These platforms enable supply chain managers to track packages in realtime, estimate transit times, identify delays, allow for realtime intervention, and increase the speed of delivery.

5. Predict future influxes of orders.

Neural network enabled process monitoring offers prescriptive analytics that help make forecasts into the future. Innovative AI technologies identify improvements that are possible and help predict when shipments may delay as well as predict and improve capacity and planning. Data-driven forecasts enable organizations to minimize safety stock and reduce overhead costs all with a core focus on improving the supply chain.

6. Reduce bottlenecks.

Supply chain processes vary widely. Unexpected influxes of orders, low inventory, shipment delays, distribution system inefficiencies, and a number of other variables can cause inconsistencies in operational performance in ways that affect a company's bottom line. Obtaining a comprehensive view of your process makes it possible to accurately identify where bottlenecks are occurring which helps enhance overall profit margins and leads to better customer experiences.

7. Improve the cost to complete each process.

Sophisticated process intelligence not only effectively monitors the full scope of organizational processes, but it also evaluates the direct cost associated with each process, enabling organizations to strategically improve the cost of completing each individual process.

The Deloitte study claims that not embracing digital innovation in the supply chain is a missed opportunity. For companies looking to succeed in their digital transformation projects, process intelligence solutions can go a long way in creating a more effective, efficient, and ultimately successful supply chain operation. Process intelligence enables supply chain leaders to more strategically cut costs, choose the right vendor partners, improve capacity planning, and streamline workflows, all of which play an important role in helping increase customer satisfaction and loyalty. Are you ready to raise your supply chain Process IQ?

Ryan Raiker is Senior Product Marketing Manager at ABBYY

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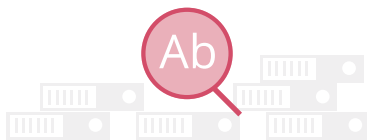
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Replaces time and cost consuming manual work for input-management by digitising, sorting and intelligently routing all incoming mail in one smart software application.

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

What the "The Good Place" teaches us about effective business automation

By Doug Hudgeon

"The Good Place" is an NBC TV series starring Kirsten Bell that finished up this year. It is an unusual TV series, not just because it concluded whilst its popularity was on the rise, but also because its core themes were philosophical.

If you haven't seen the show now is a good time to warn you that this article contains philosophical spoilers.

In The Good Place, the main characters discover that no one has gotten into heaven in hundreds of years. The reason no one is getting into heaven is because it is much more difficult to be a good person today than it was in a pre-industrialised, pre-globalised economy.

Before the industrial revolution, the socks you wore were free of negative consequences. The wool came from sheep on your neighbours farm and they were knitted by your grandmother. Today, the socks you wear may have been manufactured by child labour and shipping the socks to you has contributed to climate change.

The explosion of complexity and interrelationships in the world has made it so no one can be truly good these days and, therefore, according to the Good Place, no one is getting into heaven.

A similar dynamic is at play in business automation. Despite advances in technology, it is increasingly difficult to effectively automate your business.

In the past, an insurance company may have dealt with a few dozen brokers and it was comparatively easy to build effective processes with them. Today, that same insurance company may deal with thousands of brokers each with different claims and policy writing processes.

Surprisingly, the solution to effectively automating your business in an increasingly complex environment is the same solution Kirsten Bell and her co-stars used to get good people flowing into heaven.

In our book, *Machine Learning for Business*, we use the Solow Paradox as the jumping-off point into the application of machine learning in business automation. Understanding the Solow Paradox is the key to answering the question: "Why, despite advances in technology, is it so hard to deliver meaningful change in a business?"

The Solow paradox is named after Robert Solow, an MIT economist in the 1980s.

The mid-1980s saw the spread of IT across companies of all sizes. Before then, if you had an IT system, you were a big company with lots of resources. But the rise of the personal computer led to broad adoption of software solutions in smaller companies.

I do fault them for one cop-out. One of their centr[al] [b]eliefs is that there has been a Revolution in manufac[t]uring, its name is Programmable Automation, an[d] [t]hat American industry has failed to capitalize on i[t.] [t]hat may even be so. But then they go on, "We do n[ot] [n]eed to show that the new technologies produce a brea[k] [w]ith past patterns of productivity growth. . . . [That] [w]ould depend not just on the possibilities the technol[og]ies represent, but rather on how effectively they ar[e u]sed." What this means is that they, like everyone els[e] [a]re somewhat embarrassed by the fact that what [e]veryone feels to have been a technological revolutio[n,] [a] drastic change in our productive lives, has been a[c]companied everywhere, including Japan, by a slowin[g] [d]own of productivity growth, not by a step up. You ca[n] [s]ee the computer age everywhere but in the produc[t]ivity statistics.

In 1987, Robert Solow, reviewing a book announcing the age of Programmable Automation, said, "You can see the computer age everywhere but in the [labour] productivity statistics."
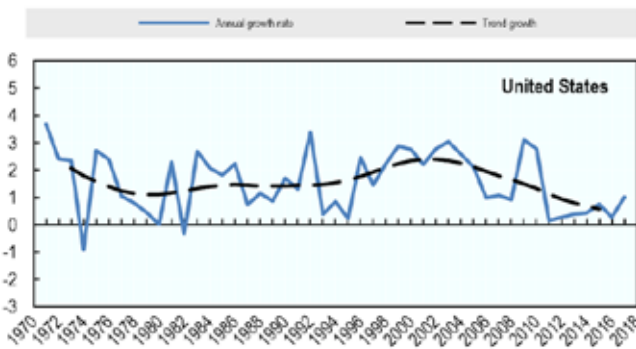
What he means by this is that, by 1987, computing power and the use of computers had rapidly increased but productivity hadn't grown very much. And that trend has continued.

Today, computer chips are 20 million times more powerful than they were in 1970 but each hour we work we only produce twice as much value as we did in 1970.

To an economist, labour productivity is the total dollar value of goods and services produced divided by the number of hours of labour it takes to create that value.

So, your personal productivity is the amount of value you generate in a year divided by the number of hours you work. A country's productivity is the Gross Domestic Product (GDP) divided by the number of hours worked by every worker in the country.

Since 1987 when Robert Solow described the Solow Paradox, productivity growth has slowed rather than sped up. The charts below show the annual productivity growth (the percentage annual increase in productivity compared to the year before).

When you look at improving productivity in your company, you face the same complexity headwinds faced by our economy as a whole. The interconnectedness of everything means it is really hard to deliver productivity improvements, and getting harder. So how do you do it?

Here are the real spoilers so, if you are going to watch the show and you don't want to know how it ends, stop reading now. Come back after you've binged the series. :)

The solution successfully adopted by the characters in The Good Place was to provide a feedback loop and allow people to go through life again – retaining some of the

OECD Compendium of Productivity Indicators 2019

When Robert Solow made his productivity quip in 1987, annual productivity growth in the US and UK was sitting on either side of 2%. Now, both are below 1%.

You can see this same trend at the micro level as well as the macro level. For example, forty years ago, commute speeds in Los Angeles were 25% faster than they are today. The increase in complexity (number of vehicles) has outpaced improvements in car technology and road infrastructure.

The paradox part of the Solow paradox is that no one really understands why productivity is not increasing.

My personal theory is that is the same reason that, in the TV show, The Good Place, no one is getting into heaven anymore. In The Good Place, the world's increasing complexity has made it so no one can be truly good anymore.

The Solow Paradox is partly explained by this same phenomenon. As the world gets more complex, it becomes harder to deliver value. Complexity is like a headwind slowing us down.

A hundred years ago Henry Ford's team took 2.5 hours to manufacture each Model T. In 2016, Tesla was taking 3–5 days to manufacture each Model S. Each year the winds of complexity blow harder. Just to stay still, you need to make your processes more streamlined and better able to cut through the headwinds.

So how does this relate to maximising the productivity of your company?

knowledge they learned in their previous iterations.

This allowed people to adapt to the complexity, live good lives despite it and eventually reach heaven.

Similarly, in business automation, the complexity of most business environments is such that you aren't going to get it right the first time. But you'll learn some things that will help you get it more right the next time.

So, when you're designing your projects, build in an iterative component that lets you improve over time and you'll eventually make it into automation heaven.

Doug Hudgeon is the CEO of EQ8R Managed Functions (https://eq8r.com). Managed Functions are automated business processes that enterprises deploy to the cloud. He is the co-author of Machine Learning for Business, a new book from Manning Publications. When not working, presenting or writing he can be found exploring waterholes along the Australian coast with his wife and two daughters.

AI document management startup raises $US10M

A Washington state-based startup, Docugami, has secured $US10 million seed funding to help develop am AI based platform that promises to transform how businesses create and manage documents for greater productivity, compliance, and insight.

Docugami also announced that Bob Muglia, former CEO of Snowflake and former head of both Microsoft's Office and Azure businesses, is joining the company as a major investor and board member.

Additional investors in the seed funding round include luminaries in the advanced document technology sector, as well as leading-edge document users, including: Greg Badros, former head of Google Apps.

Founded in March 2018 by former Microsoft executive Jean Paoli and four other senior engineering leaders from Microsoft, Docugami harnesses a wide range of artificial intelligence techniques, including natural language processing, image recognition, declarative markup, and other approaches, to enable businesses of all sizes to radically improve how they create and manage documents for greater insight, efficiency, and business impact.

Unlike other companies that require expensive and time-consuming machine learning on massive sets of big data, Docugami focuses on the "small data" that is unique to each company. Docugami says its solutions do not require customers to implement expensive new systems or change their business processes; instead, they are designed to work seamlessly with customers' existing systems such as Google Docs or Microsoft Office 365. More information about Docugami's vision and approach is available in an open letter to the industry.

Jean Paoli, chief executive officer of Docugami, said, "We are on a mission to solve the document and dark data issues that have plagued businesses of all sizes for decades, and this massive infusion of seed funding will enable us to expand our data science team to add product capabilities, and build our sales and marketing muscle to rapidly grow our customer base."

 "We are excited to be making such an unusually large seed investment because we are so impressed with the world-class team of engineers, data scientists and business leaders Docugami has assembled," said Ilya Kirnos, founding partner and chief technology officer at Signal-Fire. "The Docugami team helped create and deliver the document technology used by more than a billion people around the world today, and they have the vision and experience to transform how people use and think about documents for the next 20-30 years."

"Over the coming decade, artificial intelligence will transform every industry. Business documents are the lifeblood of every company, yet today they are opaque to business systems and require constant interpretation and translation by frontline staff, legal professionals, and others," said Muglia.

"Docugami is poised to redefine the process of business document creation and management, unlocking the information in those documents, and enabling executives and frontline employees to focus on what matters most to the business."

"I have been exploring what we see as the potential for a seismic shift in how documents and contracts – the heart of business productivity – are created, understood and analyzed, powered by recent advances in artificial intelligence," said Craig Hanson, General Partner at NextWorld Capital, an enterprise tech venture capital firm in San Francisco.

"In our thesis, the vision for the 'future of work' will require a rethinking of the core element of daily business workflows, the document, and this is now possible with AI. The Docugami team helped create the intelligent document revolution at Microsoft, and is now assembled to launch this next revolution."

Docugami CEO Jean Paoli, a pioneer in the field of document engineering, is one of the inventors of XML and, during his time at Microsoft, started several billion-dollar businesses for the company: the XML effort, Microsoft InfoPath, the modern Microsoft Office file formats, and Microsoft's open-source subsidiary that enabled today's massive open source usage in Azure. Previously, he created two startups with INRIA, the famed National Institute for Research in Computer Science and Automation in France.

In addition to Paoli, co-founders include Andrew Begun, a founding member of InfoPath and an engineering manager in Windows; Taqi Jaffri, former principal product manager for Microsoft Business AI & Research; Mike Palmer, founding member of InfoPath and an engineering manager in Office; and Martin Sawicki, former engineering manager for Microsoft Office and Azure.

The Docugami science team is led by Luis Martí, an international expert in machine learning and evolutionary computing, and Steve DeRose, a renowned expert in natural language processing, computational linguistics, and standards related to document processing. The company's business team is led by Alan Yates, who created the Microsoft worldwide partner program, and led sales and marketing for four successful startup companies before joining Docugami.

The $US10 million seed round brings Docugami's total amount raised to $US11.7 million, which includes $US1.7 million in pre-seed funding provided by the founders.

www.docugami.com

The Docugami startup team includes internationally recognized data scientists and world-class software engineering, business, and marketing leaders.
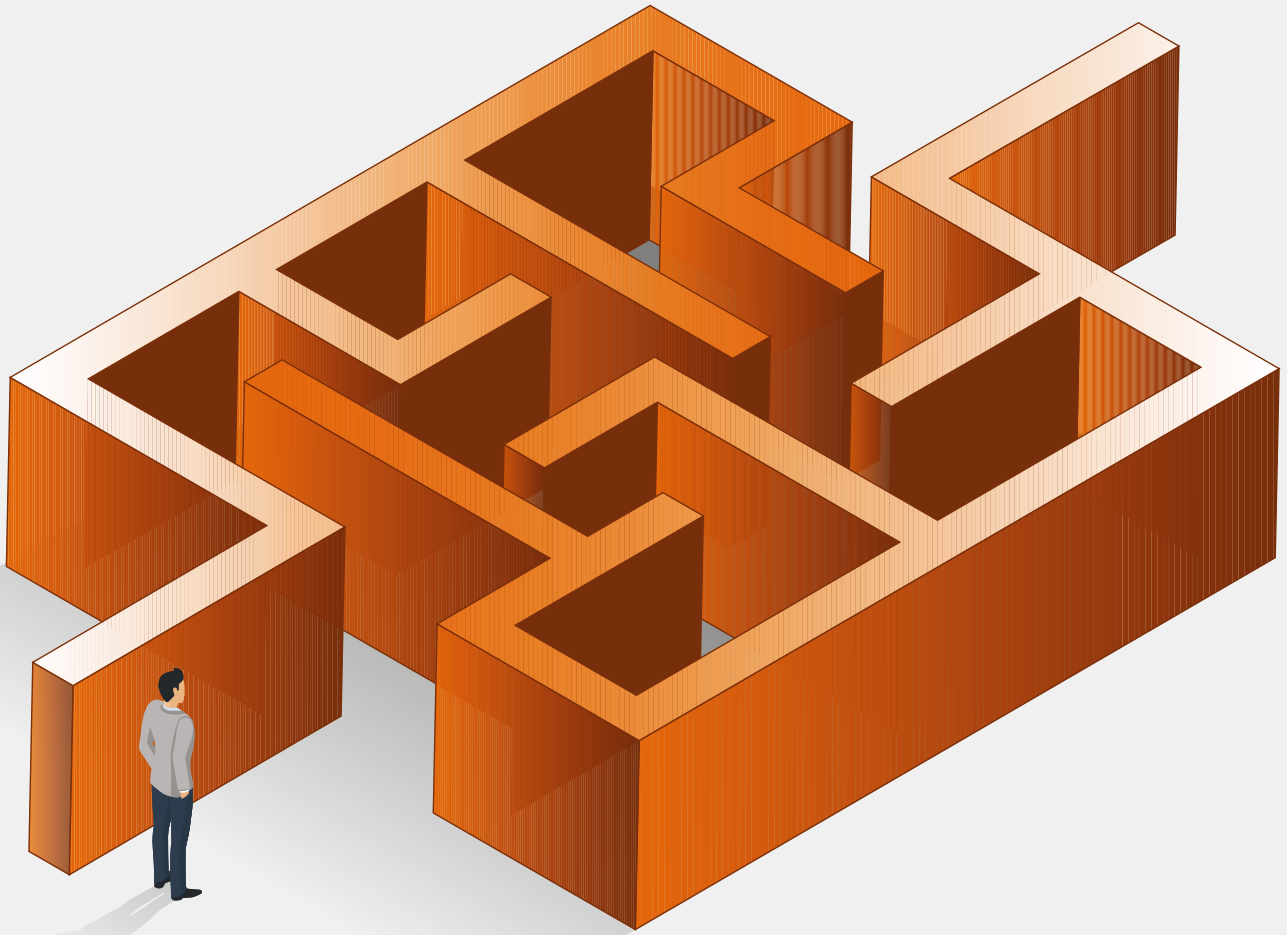
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Reflections on a Decade of Digital Transformation

By Didier Bonnet

On the eve of this new decade, it is worth reflecting on what has truly been one of the most talked about, exciting and challenging business transition of the 2010s, digital transformation.

So much ink has been spilled on the topic in the past few years that it is difficult to make sense of what we've been through, let alone where we're going. But, given the scale and the strategic importance of this managerial and technological shift, some reflection is warranted, and hopefully we can collectively draw some learnings for the next decade. Here are some of my observations from a decade riding this "digital rollercoaster".

The Digital Transformation narrative has been highjacked. At the time we published the book "Leading Digital", digital transformation was not the "Thing" it has become today. We attempted to put some structures and frameworks to help business leaders successfully navigate this new phase of business transformation. Today, digital transformation is fully part of the corporate lexicon and has reached quasi-fashion status. Digital transformation has become an industry in itself and, with it, the true power of the phenomenon has become diluted to the point where it has virtually lost its meaning. The digital transformation agenda has been hijacked.

The culprits, well intentioned or otherwise, are many. The tech crowd became too enamoured with the "digital" part of digital transformation. Every tech products or applications from cybersecurity to cloud computing to the most obscure piece of software is marketed as the key components of your successful digital transformation. The "transformation" part is quickly forgotten and, with it, the most important driver of business performance.

Then came the "disruption evangelists", focussed on portraying digital transformation solely as being the destruction of established industries at the mercy of innovative newcomers. Power to the small. David and Goliath. Every industry being disrupted, and most large traditional corporations being on the brink of collapse from revolutionary business models. Of course, digital disruption has happened in some industries, like music, and it will happen again. But not all. And often not at the rate that makes catchy headlines.

Not far behind came the quants, with the answer to everything being big data and statistical models. Promising to predict what customers will buy even before they have any intention to purchase, designing self-adjusting marketing mixes through completely programmatic marketing functions and so on. Of course, management has become much more scientific, and this is a good thing. But customer behaviour remains a stubbornly difficult dimension to accurately predict. And fluid data management in large organizations is still a managerial tour de force.

Last, but not least, artificial Intelligence (loosely defined, as it often is) and automation have recently crashed the digital transformation party. First in their Armageddon incarnation, where machines take over the world and make most of our jobs redundant. Then in their positivist disguise. Most business problems are solved through algorithms, all diseases are cured through numbers, and we create millions of, yet undefined, new exciting jobs. Hurray!

So, what is there to be learned? Technological progress will continue its relentless advance and will forever provide more possibilities to do amazing things with our lives and our organizations. And that's a good thing. How we adapt our corporations, organize our work, develop capabilities and ensure a prosperous future for our workforces out of all this technological progress is what really matters.

The "hijacking" of the digital transformation agenda is not a result of evil thinking or deviousness. Scientists and engineers are doing a great job of inventing. But people want to see instant results, big shifts, newsworthy achievements, moon shots and so on. Truth is, digital transformations are fairly long cycles. The old lesson that

changing people and organizations takes way more time than developing }technology is truer today than ever before. Technology is providing amazing new possibilities for business and organizations. But it's time to move the cursor back towards the "Transformation" side of the digital transformation equation if we want to extract substantial business benefits from this transition.

A (Steep) Decade-Long learning curve?

The concept of digital transformation is powerful and broad. It is the corporate equivalent of a Swiss Army knife for technology-led organizational change. The reality is that digital transformation comes in many flavours, with differing complexity and impact. There's been a visible progression in how organizations have evolved their digital transformation efforts to improve performance.

Early in the decade, behind the veil of digital transformation, were a whole array of technology projects that were, in the main, IT and systems improvements. For instance, many firms were improving and integrating their web presence or implementing ERP and CRM systems to streamline their backbone operations. Later, firms moved to automating functions and/or implementing point solutions. For instance, digitizing some of the HR core processes or automating marketing campaign management workflows. When implemented successfully, these efforts all contributed to streamlining and improving firms' operations. But none were truly transformational.

The next cycle was very different. Firms started to look at end-to-end/horizontal processes such as order-to-cash in operations, cross-channel integration at the front-end, or connecting employees through enterprise social networks. At this point, digital applications came face-to-face with the business transformation challenge.

Why? Because they cut across natural organizational silos, opened up accountability and governance issues, and exposed the need for changing traditional ways of working.

The people challenge and the organizational complexity came to the fore. Despite much talk about disruption and new business models at the time, the key focus of these transformations was on digitizing the current customer interactions and operations. Fundamentally, the processes of how products/services were made and delivered to customers remained the same. It was about modernizing the existing business.

Then came the exciting stuff. Using digital technology to innovate, change how business is done and create new sources of value. Speed became paramount. And many companies got better at fast-tracking innovations from ideation to pilot or prototyping stages using techniques from DevOps to design thinking to agile methodologies.

We could visualize digital transformation outcomes quicker than ever before. But in many cases, the process went too far and generated myriads of pilots that never saw the (business return) light of day. Scaling innovations became the main roadblock.

A few firms went even further, radically transforming their business models and how the company makes money. Some, like Michelin, moving from a product centric model to added-value services. Others, such as Nike and Ping An insurance, using the power of digital platforms to develop new ways of serving and engaging their customers.

So, we've seen this digital transformation decade go through several development cycles, from modernizing

The old lesson that changing people and organizations takes way more time than developing }technology is truer today than ever before.

existing businesses to transforming functions and core processes and to creating new digital businesses.

Although the evolution has probably not been as "cleanly linear" as presented above, a key question remains: is there a corporate learning curve for firms to move to ever more sophisticated forms of digital transformation? The answer is most probably yes! Leapfrogging strategies might be plausible for small to medium size firms. But no large organization will be immune from this digital learning curve.

We've seen traditional firms that have successfully navigated the early forms of digital transformation continuing to digitally improve firm performance in ever more sophisticated and complex ways, such as Burberry in B2C or Schneider Electric in B2B.

Equally, we've seen others struggling, and some are still struggling today, to grasp the fundamentals of digital transformation (Digital + Transformation, the What and the How). And this is worrying. If this situation persists, we will see a polarization in traditional companies between those that will continue their digital ascendency and those who will be left behind.

The Awakening of the Industrial Sector

Fuelled by advances in mobile apps and social media, the early focus of digital transformation was skewed towards the customer experience particularly in consumer businesses. Companies from Nike to Disney showed the way in how to successfully use digital technology to substantially enhanced how companies relate to their customers from a product, service and experience standpoint.

Of course, many industrial and B2B players such as UPS or Schindler were early pioneers of digital transformation, but most of the media interest was on the exciting development at the front end. It all changed with "Industry 4.0".

Emanating from an initiative from the German government, it refocussed the attention on the immense opportunities that digital technology provides for automation and data exchange in manufacturing equipment, processes and systems. The attention turned to digital manufacturing, smart factories, industrial internet and other applications later extended under the theme of the "fourth industrial revolution".

The second part of the decade saw a real awakening of the industrial sector to the amazing possibilities for operational excellence created by digital transformation. Fuelled by exciting new technologies such as additive manufacturing or digital twining, smart digital applications from predictive maintenance to intelligent mining fuelled the growth of this new industrial digital transition. No industrial sector remained untouched.

DIGITAL TRANSFORMATION

Despite many views to the contrary, the engineering mindsets in many industrial players actually helped. Business cases were easier to measure because baseline performance was somewhat clearer to quantify than on the customer side. Some of the potential improvements touched massive parts of the manufacturing cost structure, and technical capabilities were available in larger numbers than in traditional B2C companies.

Although hard to quantify, my sense is that today, the digital transformation focus has shifted to a 50/50 model between customer experience and industrial operations.

Of course, we will continue to see amazing innovations and new business models in B2C companies. But, fuelled by exciting technologies in areas such as automation and IoT, and the great promise of industrial AI, we will continue to see the share of industrial digital transformation grow in the next decade. This industrial renaissance is only just starting.

A Second Wave of Digital Transformation?

Whereas the first wave of digital transformation was based on point solutions, such as e-com platforms, or the smart meshing together of several digital applications, such as taxi-hailing apps, today's digital platforms are more complex and far broader in their applications.

We are entering a second wave of digital transformation based on general purpose technologies such as IoT, AI, VR/AR, 5G et al that will provide the basis for the next chapter of organizational performance.

Why is it a second wave? Because for many firms, the challenge is graduating from the first wave of digital transformation – "digitizing" operations by streamlining processes or connecting to customers and suppliers in more digital ways – to the second – creating new sources of value using this new wave of general-purpose technologies.

Even companies that have worked hard to master the first wave of digital innovations, now find themselves lacking the capabilities needed to harness the second. These capabilities are advanced, rare and expensive.

Faced with this challenge, firms have to turn elsewhere to access these capabilities, for example by partnering with universities or other open innovation sources. Successfully navigating this second wave of digital transformation requires closing an important capability gap.

Companies will need once again to raise their game by accessing or acquiring new skills and talents, reskilling their existing workforces and adapting their innovation systems. The challenge is immense, but the size of the business prize will be a magnitude greater than during the first wave. Fasten your seatbelt!

Strategy: It was the Best of Time, it was the Worst of Time...

As in all previous decades, many commentators predicted "the death of strategy". The business and technology landscape were moving too fast to allow for any form of foresight. N

ew competitive rules – with the increasing power of global platforms and a multitude of innovative newcomers. An ever-faster rate of potentially disruptive technologies. An abundance of funding fuelling innovation and, sometimes, irrationality in valuations. More turbulent geo-political environments and urgent environmental concerns.

All combined to create more risks and more business unpredictability. Exactly the conditions that make good strategy formulation even more important than before. But old maps won't get you there.

Much time was spent arguing whether firms needed both a business strategy and a digital strategy or whether they were just two sides of the same coin? Truth is, the strategy playbook has already started to be rewritten. We've embraced open innovation models.

We have a much better understanding of the economics of platforms and ecosystems. And most companies understand that the traditional strategy planning process is no longer suited. But we still have a long way to go.

So, more uncertainty, new competitive and transformation challenges, more data than ever before, new tools for analysis…and a new strategy rulebook for the digital world to be written. What a great time it is to be a (digital) strategist!

So, What Comes Next?

One of the most common questions I get asked is: "what comes next after digital transformation" or "should we still be talking about digital as a thing since it has become so pervasive?". I would argue these are the wrong questions.

We've heard several (so-called) "Futurists" evangelising about the "Post-Digital Economy", but we're left with the feeling that the title is more exciting than the content behind it. On the other hand, does it make any sense to still talk about digital marketing? What other form exist today?

My conclusion is that such lines of inquiry are not very useful for executives. With the early developments in digital transformation we entered an era where technological development is indissociable from any part of business and competition.

Whether you are a strategist, a supply-chain manager or an HR executive. (Digital) Technology is, and will remain, the main driver of business transformation. It is evolving at amazing speed and requires ever more advanced capabilities to capture new opportunities.

Our organizations made important headways into becoming digital businesses. But, as was true a decade ago, our ability to adapt our organizational formats and raise our people' capability is still way behind the speed of technological progress.

And that's why whatever we do, or whatever clever name we find for the next wave of digital transformation, one strong lesson from the past still holds true – people and organizational transformation abilities will remain at the core of successful transformations.

Technology will remain the fuel and, in the second wave, become ever more powerful. How we use these technologies could generate very good or very bad outcomes for people, corporations and society.

The next wave of digital transformation, will have to be much more responsible. It is for leaders, organizations and institutions to ensure that we build a positive future out of this next wave.

What a Ride it's been! It's been hard at times, but always exhilarating. The next 10 years will be just as exciting and unpredictable (if not more) than the last decade. We ain't seen nothing yet.

Didier Bonnet is Affiliate Professor of Strategy and Digital Transformation at IMD Business School.

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Robotic Process Automation (RPA):
You still can't beat good process management

By Jamie Bartholomeou

Whether processes are being simplified, transformed or automated, they should be organised and controlled through solid Business Process Management (BPM). The workforce of the future will be a seamless blend of humans and machines doing those tasks they are more suited to. Whether it's a human or digital pair of hands that's actually completing the work, poor process management will only drive inefficiencies and errors.

Utilising structured BPM thinking is a necessity to ensure processes are well embedded within an enterprise.

Roseman and vom Brocke (2010) suggest there are six core elements of BPM. From an RPA perspective, these provide a fantastic framework to ensure processes are under control. Of course, this should be considered across the entirety of an enterprise's processes – BPM should not discriminate between automated and manual processes.

The six elements of BPM are suggested as follows:

■ Strategic alignment. Significant RPA programs and other Machine Learning (ML) / AI-type technologies need to be considered enterprise-wide. Implementation without a strategic approach will likely result in sporadic deployments which lack direction and support, and ultimately, go the way of the 70% of digital transformations which fail (Morgan, 2019).

■ Governance. One of the chronic issues often experienced post-automation is a loss of process ownership. Often for manual processes this can be a problem but by automating a process there is a real chance that a process owner can become distanced from a process, which is then exacerbated by people turnover. A structured Centre of Excellence (CoE) with stringent guidelines and controls as part of the strategic RPA approach must be developed to minimise this risk and prevent the risk of cottage industries developing.

■ IT. From a governance, security and delivery perspective, IT is a key function to form part of the CoE. At its fundamental level though, investment in a BPM system is crucial to help maintain process oversight, knowledge and consistently review and improve. A BPM system should become a strategic tool used by an organisation to understand how it creates value for customers and where improvements can be continuously deployed. It will also provide a centralised process library and avoid the dangers encountered by having individual process maps and procedures stored as separate files deep on personal or network drives.

■ People. Underpinned by a solid BPM system, process stakeholders must be agreed and assigned. Referencing the previously mentioned process ownership issue, this is as applicable to automated processes as well as manual ones. These people should be trained and skilled in the fundamentals of process management so that they can ensure continuous improvement but also understand when signals might be indicating a process is in danger of becoming out of control.

■ Culture. Just as process management must be part of the strategic vision; to support better automation implementations and enhance future ML/AI approaches, a "process" culture needs to be fostered. Through executive sponsorship a focus on process excellence can help this develop.

■ Methods. Providing simple but robust frameworks for BPM is crucial to help develop a process excellence culture but also to ensure that processes, automated or not, are understood and assessed in a standardised way. Good BPM isn't rocket science but can sometimes be over-complicated by high touch methods and frameworks.

Too often process improvement teams are firefighters, tactically fixing enterprise issues with varying degrees of long-term sustainability.

The use of solid BPM foundations will start to ensure that a more strategic approach is taken and offers a platform from which to ensure RPA and other future technological developments are implemented for a viable future.

RPA is a powerful tool with many potential benefits if utilised alongside process improvement and process management techniques to heighten process maturity.

Jamie Bartholomeou is Senior Manager – Business Improvement at AMP Capital.

Automatic document security for Content Manager

Micro Focus has announced the release of Voltage SmartCipher, a new offering that integrates with Control Point and Content Manager to provide secure collaboration and simplify unstructured data protection and management. Voltage SmartCipher can inspect Office documents and .pdf files at the endpoint and search for a content match based on dictionary or regex matches. Once a match is found, policy can be automatically assigned. The policy can transparently encrypt the file, apply classification as needed and control/monitor access to the file.

Kevin McLeod, Senior Product Manager - Data Security at Micro Focus, told IDM, "The initial integration we are working on now with Control Point gives CP the ability to invoke SmartCipher encryption on any file as an "action" tied to a policy. Content Manager can detect this and apply those policies as needed. Further down the road we will look to provide Content Manager the ability to inspect content of SmartCipher protected files so CM can apply policies as needed without Control Point."

Voltage SmartCipher transparently works with any data type, including on-premises or cloud offerings, letting organisations safely leverage information for business value while also protecting the privacy of this unstructured data.

In order to attain insights from a growing data set without exposing the organisation to unnecessary risk, organisations must discover and classify files containing sensitive data. By proactively flagging this information, both internal and external users will be able to more effectively share files across multiple platforms in accordance with security and privacy requirements.

"Whether complying with privacy regulations, such as GDPR or the newly-enacted California Consumer Privacy Act, or extending data privacy during collaboration in the cloud for consistency, Voltage SmartCipher and the Micro Focus portfolio protect sensitive data with granular privacy controls for users, applications, and data to reduce privacy breach risk," said Tony de la Lama, Vice President, Security, Risk & Governance Solutions at Micro Focus.

"The introduction of Voltage SmartCipher to the market means customers and organisations can now rely on a single, truly transparent solution that comprehensively manages and secures information, detects and responds to data breaches, and enforces identity and access controls."

Voltage SmartCipher's patented Transparent File Encryption technology embeds access and protection policy around individual files and the data contained within to prevent unauthorised access to content or policy.

It enables increased visibility and control over sensitive files with centralised access and use policy managed centrally and enforced locally at a file level. New policies can be dynamically implemented and synchronised with files on endpoints or collaboration platforms. Built-in file usage monitoring and alerting lets enterprises determine when, where, and how individual files are accessed and altered, and by whom, to provide broad control and protection over unstructured data.

https://www.microfocus.com/en-us/products/voltage-smartcipher/overview

Managing Emails should be easy

By Frank McKenna

The ISO standard 15489, clearly and succinctly defines a record as evidence of a business transaction and also clearly says that a record is a record regardless of media.

This means that the business of records management includes the management of all types of records including paper, electronic documents, images and emails. Email Management is an essential part of Records Management.

In my experience, many records managers avoid managing emails on the basis that it is too difficult. One of the most common excuses I hear is that they don't manage emails because they can't avoid accidentally capturing 'personal' emails. This is of course nonsense as all it takes is a corporate email policy clearly defining the ownership of all corporate emails and advising staff what to do to 'protect' personal emails.

Of course, why people are using the corporate email server to send and receive sensitive personal emails is beyond me. If it is personal and sensitive and private (and likely to embarrass you) then do not use the corporate email server, use Gmail or Twitter or send an SMS. This should also be spelled out clearly in the company email policy; Caveat Emptor, 'Let the user beware.' If you are silly enough to use the corporate email server for sensitive personal emails, then be prepared to be embarrassed when other people read them. Warn staff via the email policy that all emails processed by the corporate email server are company property and will be examined.

The most effective way to manage Emails and enable eDiscovery

Let's assume we have decided to manage emails in the most effective manner possible, how should we best capture, classify, store, index and retrieve them?

Should we do it the exact same way we have traditionally managed paper records with file numbers, titles and a classification built from a hierarchical taxonomy? Or, should we do it in a way that makes it as easy and as fast as possible to capture and search for and view them? That is, shouldn't we handle emails in a way most appropriate to their form, structure and content? Emails don't start out with file numbers and titles so why assign them?

Should we print them out and file them as paper records? I hope not, emails don't start out as paper so why convert them to paper? Aren't we all supposed to be digitizing our records?

End users naturally want to search for emails by sender, recipient, subject, date sent, date received, etc., so why force them to search for emails by file number, title and or classification? Why make it as hard as possible for the end user to find an email when it is just as easy to make it as easy as possible for an end user to find an email by its natural and well-known attributes? Let the end user tell you how they want to search for emails.

Even though an email is a record, it is not the same as a paper document or an electronic document or an image. An email has a unique structure and content that everyone in the world is aware of and everyone in the world prefers to search for an email using that well known structure and content. Who sent it, who did they send it to, when did they send it, what was the subject, what was the content, etc.?

I am of course talking about the common fields or properties of an email being sender, recipient, CC, BCC (usually not available), subject, body text and attachments. All we really need is three types of common searches; full text, Metadata and BOOLEAN (combining values of the elements of the Metadata in an AND, BUT OR NOT relationship) searching on these common email fields and anyone can find any email in seconds.

By all means link an email to its parent Folder/Case/Contract (but it is not necessary) in your Content Management System but please don't force the long suffering end user to search for the emails the same way we have searched for paper over the centuries. Allow the end user to search by date, sender, recipient, CC and subject plus the full text of the body of the email, plus the full text of any attachments and date ranges. Give them a natural search that everyone understands and that no one needs to be trained on.

Capture at the Server, not the Desktop

If you want to be as efficient as possible then don't try to capture emails at the desktop, capture them at the server. It should be patently obvious; capture them before someone has the opportunity to delete them or simply forgets to capture them. Capture them efficiently and totally consistently with an automatic rules-driven or AI process that consistently and reliably (not forgetting or deleting anything) applies your corporate email policy day in and day out come hail or shine with no time off for maternity leave, paternity leave, compassionate leave, public holidays, illness, vacations or lapses of concentration. You can do this because emails are different to paper, they can be easily captured, stored and indexed automatically as digital records; paper can't be.

Use the computer to automate the capture of emails in a way that you cannot do to automate the capture of paper. Use the structure and content of emails and the power of the computer to your advantage.

Contrary to popular opinion, emails are actually much easier to capture and index than paper records but only if you use the computer to take advantage of the email's natural structure and content. However, if you choose to manage emails the same way you manage paper then emails will indeed be difficult and time-consuming to manage and eDiscovery will be difficult and time-consuming.

Facilitate eDiscovery by allowing searches by the email's natural attributes

For heaven's sake please don't bog down the whole email eDiscovery process by forcing users to search for emails via an overly complex, inexplicably intricate and incomprehensible Taxonomy. Please keep it simple or you will end up with hundreds or thousands of unmanageable rules to maintain. I have written about this previously in a paper entitled 'Do you really need a Taxonomy?' and I recommend that anyone contemplating managing emails first reads this paper.

Email Management isn't difficult, it is easy. The message is as simple as simple can be; keep it simple and 'natural' or it won't work!

Frank McKenna is founder and CEO of Australian ECM vendor Knowledgeone Corporation

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2020 BLI BUYERS LAB LINE OF THE YEAR

Award Winning Technology

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SCANNER LINE OF THE YEAR **2016 BLI BUYERS LAB LINE OF THE YEAR**

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SCANNER LINE OF THE YEAR **2018 BLI BUYERS LAB LINE OF THE YEAR**

SCANNER LINE OF THE YEAR **2020 BLI BUYERS LAB LINE OF THE YEAR**
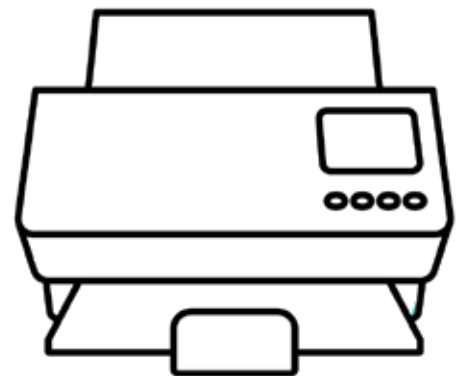
Kodak alaris Makes Sense

Automated workflows boost scanning demand

Future Market Insights has released a report on the Document Imaging Market: in line with a paradigm shift of business industry towards a paperless ecology, the global document imaging market generated revenues worth $US70 billion in 2018.

The market will thrive at a robust double digit CAGR during 2019 – 2029, attributed to the accelerating adoption of automated document imaging solutions that can provide secure print and document imaging services.

The recent past has seen rapidly growing interest of customers in multi-functional printers and mobile printing apps. Organisations seeking automation are mainly looking for automated supply and service fulfillment scanners.

The shift of users from manual to automated workflow is boosting demand for document imaging software.

Companies are migrating from traditional server host to cloud host, fuelling document imaging market growth.

In an effort to reach a superior level of information security, collaboration, and governance, enterprises from across the globe are embracing the paperless transition.

Document imaging has come up as a reliable means to facilitate this transformation.

Government entities, educational institutions, law firms, and several industries remain prime users of this technology.

Many companies are preferring cloud-hosted document imaging software to reduce their hardware maintenance costs and complexities. In addition, companies also choose vendors who offer features such as cloud hosting and maintenance services. T

hus, they can grab the opportunity to increase their customers by providing such facilities and features through their document imaging software.

7 steps to modernise your records management for the digital age

By Atle Skjekkeland

Many enterprises try to use records management principles from the paper era to manage records in the digital era, but the growing volume, variety, and velocity of electronic records requires a new approach.

Below are my recommendations for simplifying and automating records management in Office 365 and beyond.

■Establish a corporate compliance team - don't rely on the business to define how records should be managed in their business with regulations like the GDPR. A global enterprise will need to comply with several thousands of legal requirements for how records should be managed. The business will know the value of information over time, but the correct retention and security classification should be set by a corporate compliance team consisting of legal, compliance, privacy, IT, and information management experts.

■Ensure compliance by design – don't force users to manually identify, capture, and classify all your electronic records. Automate records management based on past history, role, content, storage location, metadata, and/or machine learning.

■Go for big buckets – don't waste time creating lots of retention schedules. The more buckets, the more options, the more errors, the more complexity. Minimize instead the number of retention schedules to make it easier for users and machines to pick the right retention.

■Ensure your corporate requirements cover your local requirements – don't waste time and resources implementing different retention schedules for different locations. Set your corporate requirements based on the toughest requirements. For example, if financial information needs to be

kept minimum 10 years in the EU, and 7 years in the US, make then 10 years your corporate retention requirement. If HR files need to be deleted maximum 5 years after an employee leaves in the EU, and never in the US, make then 5 years your corporate retention requirement.

■Get rid of disposition reviews – don't waste time on manual disposition reviews at the end of the retention. A manual review may make sense for Iron Mountain boxes, but not individual records. As an example, 10% disposition reviews of 10 mill records with each review taking 15 minutes, is 31,250 days. Do automatic disposition for records that can't be kept permanent.

■Minimize the use of event-based retention – don't complicate the user experience and waste IT resources on event-based retention unless absolutely necessary. Event-based retention requires users to add unique metadata to identify the relevant records, e.g. employee number, agreement number, and triggers to be established to start the retention, e.g. employee leaving your organization, agreement has expired. Try instead to rely on data-based retention based on information lifespan.

■Automate the disposition of non-records – don't waste storage space, clutter search results, and increase eDiscovery costs by storing ROT (redundant, trivial, outdated) information forever. Ensure all information has a lifecycle, not only records. Do automatic deletion of non-records if they haven't been modified in 3 years.

Feel free to contact me if you need help improving and automating your compliance program.

Atle Skjekkeland is CEO of Infotechtion is a vendor-independent boutique consulting firm specializing in improving and automating information protection and governance in Office 365 and beyond.

66% of companies to increase RPA spend in 2020 finds Forrester Study

UiPath has announced a new study conducted by Forrester Consulting, 'The Future of Work Is Still Being Written, But Who Is Holding the Pen?'.

The study assesses the impact that automation technologies like AI and RPA are having on businesses, their employees, and how businesses are preparing for this new work paradigm. Automation is transforming businesses around the globe, directly impacting the bottom line as a result of improved productivity and efficiency.

Forrester surveyed 270 decision makers from operations groups, shared services, finance and other lines of business across the United States, United Kingdom, France and Germany and discovered:

Investment in automation will rise. Eighty-six percent of respondents cite that improving the customer experience is a "critical" or "high" business priority that their organisation will adopt over the next 12 months.

Automation – namely RPA – will enable businesses to deliver better service to their customers, which will drive conversions and revenue.

Furthermore, automation is also enabling businesses to reduce costs, differentiate themselves in the marketplace and improve employee experience – all top priorities for survey respondents. For these reasons, 66 percent of companies in the study will increase RPA software spend by at least 5 percent over the next 12 months.

Automation will affect roles in different ways. By 2030, some jobs will be cannibalised, some will be created, others will be transformed – but only a few will remain untouched.

To win in the future of work, businesses need to plan for automation's disruption on every job role and level.

The digital skills gap is a concern for all employees. With automation advancing, some employees will be motivated, passionate and advocate for the change, while others will be reluctant to learn new skills.

Forty-one percent of respondents say their employees are concerned that their existing digital skills may not match what their job will require in the future, while 53 percent say employees are concerned or feel threatened by the growing complexity of tasks they face.

Automation education in the workplace will boost career prospects. When businesses invest in automation, they should invest in employee education, too.

Training employees, providing them vocational courses, or encouraging them to pursue digital qualifications allows them to overcome fears around automation and embrace it as a productivity-boosting asset.

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Taming Office365 & SharePoint On-Line

by Martin Erasmuson

Your organisation has likely gotten caught up in the world-wide trend of migrating to Office365 and SharePoint on-line. In doing that you have probably had conversations with various IT staff where you've heard words and phrases like: "Teams, Dynamic Groups, Channels, AIP, Flow, LogicApps, PowerApps, evergreen" to the point where it sounds like English, but you have no idea what they're talking about, let alone understanding the risks and advantages.

While I'm a seasoned Information Management Consultant and Architect, I still consider myself a simple boy from rural New Zealand and I too had to negotiate the turns and pitfalls, terms and jargon in getting my head around Microsoft's new cloud environment. In doing that I've managed to unpack it sufficiently that this simple lad can understand it. This blog then is for non-technical, or once-technical Senior Managers who are tired, confused and/or frustrated by the mumbo jumbo and are looking to move their organisation to O-365 and SharePoint on-line, while avoiding the pitfalls along the way. I've whittled it down to what I believe are the key elements, the pros and cons for each with a high-level implementation guide.

I'll follow it up with subsequent articles focused on different areas and digging a bit deeper into some covered here.

Your comments and feedback are welcome.

Background

At first glance, Windows 10 and Office365 looks much like your on-premise environment. Yes, you will continue to use Office applications (Microsoft, much like the rest of the planet, now refer to these as 'Apps' – Word, Excel, PowerPoint etc.), and there is a reasonably similar-looking SharePoint to save my documents in. Great. But there's a whole lot more going on in the underlying mechanics (architecture) of the O-365 cloud environment, and therein lies some real advantages but also some significant risks.

In the introduction I mentioned 'Teams'. At first glance, Microsoft Teams looks to be 'just another app'. Don't be fooled. Teams is at the heart of Microsoft's Modern Workplace initiative, an 'umbrella' for their platform and tools for collaboration, security and compliance, operating system (Windows 10), and SharePoint on-line. Microsoft's vision is that 'Teams' will become every knowledge workers' hub of operations; users will 'live' in Teams for communications and collaboration.

Within that Microsoft vision, SharePoint will be relegated to a mere content store, interacting with other Microsoft architectural elements behind the scenes to enable various automated governance outcomes (information security, data loss protection, retention and disposal and loads more) but users will pretty much live in Teams.

Back in July 2019 Microsoft announced that Teams is their fastest growing 'app' ever, surpassing over 13 million users (and 20 million by Nov) which would seem to support their vision of where Teams is headed.

The upshot: your O-365 strategy needs to include Teams at its core.

Teams in a nutshell

Microsoft Teams (Teams) is basically a front-end user interface to a bunch of previously separate tools, functions and applications; both desktop and mobile (the latter of course in the Teams mobile app for Windows, Apple or Android). It incorporates messaging (text, voice and video – and will eventually replace Skype for Business); create and save content (documents, files); collaboration and sharing with other users.

Most organisations with a legacy on-premise Microsoft environment had their IM Strategy centred around SharePoint. Within their new Teams-based architecture, Microsoft relegate SharePoint to a mere content store (for various documents and content, much like the database with an application on the front-end).

Teams basically employs a Folder hierarchy where the Team (name) is at the top level, and Channels under them. Channels are similar to sub-folders or themes of the Team e.g.

■ Team Name: "Office Christmas Party 2019"

■ Channel Name: "Catering"

■ Channel Name: "Entertainment"

■ Channel Name: "Gifts & Santa"

This Team/Channel folder structure is stored in the associated SharePoint on-line Site. That is somewhat simplistic, but that's the gist of it.

The Teams interface is ultimately designed for the busy 'Knowledge-Worker' allowing them to create new Teams, add Channels, save chat and emails, create and save document and interact with other users around the office or world, all within the Teams environment. And when they're done with a Channel or an entire Team; they can discard it. Then rinse and repeat. Simple right?

The Dark Side

A key rational at the heart of Microsoft's new strategy is the idea of self-service. Indeed, at a certain level, self-service is Office 365, making cloud-based collaboration the most flexible, efficient and productive i.e. if a user wants something; anything, they can create, enable, share or download it by themselves. Unsurprisingly then, out-of-the box configuration in your new 365-tenant will enable self-service to the maximum extent possible. That is a double-edged sword. While it supports the here-and-now approach; unchecked it will cause you longer-term pain AKA 'Information Debt'.
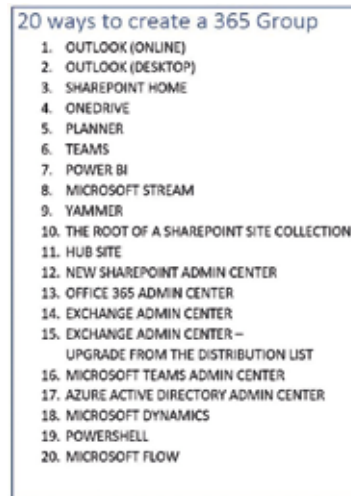
Groups

You cannot talk about Teams without talking about Groups. Office 365 Groups (Groups), are distinct from Security Groups that your IT folk manage in Active Directory (Azure Active Directory [AAD] in the cloud environment). Groups are used for collaboration between users (i.e. members of Teams); so before you can create a Team you must first create a Group.

At first telling that doesn't sound like a big deal, however, within the default self-service Microsoft environment there 20 different places (right) where any user can create a Group (and this was as at August 2019, so by now, likely more).

Within the Microsoft default self-service environment, a user first creates a Group and from there can create or get by default a Team, SharePoint Site (Group email, Calendar, Planner and more).

Many organisations I've spoken to report what I've termed 'Groups-Lust', where, via one of those 20 options, users have created hundreds of Groups, Teams and SharePoint Sites in just a few weeks. Those same organisations report they are slowly working to unpick the mess.

20 ways to create a 365 Group
1. OUTLOOK (ONLINE)
2. OUTLOOK (DESKTOP)
3. SHAREPOINT HOME
4. ONEDRIVE
5. PLANNER
6. TEAMS
7. POWER BI
8. MICROSOFT STREAM
9. YAMMER
10. THE ROOT OF A SHAREPOINT SITE COLLECTION
11. HUB SITE
12. NEW SHAREPOINT ADMIN CENTER
13. OFFICE 365 ADMIN CENTER
14. EXCHANGE ADMIN CENTER
15. EXCHANGE ADMIN CENTER – UPGRADE FROM THE DISTRIBUTION LIST
16. MICROSOFT TEAMS ADMIN CENTER
17. AZURE ACTIVE DIRECTORY ADMIN CENTER
18. MICROSOFT DYNAMICS
19. POWERSHELL
20. MICROSOFT FLOW

Taxonomy and File Structure

In your on-premise SharePoint environment, your organisation likely created some logical structure; possibly based on your Org Structure or Functions, to make it easier for users to navigate to Sites and find content. Typically hanging off that structure is a bunch of Folders, capability and activities including Metadata, Security measures and Retention and Disposal schedule to name a few.

Out-of-the-box Teams ignores your structure and will save Teams generated content (including: Documents, Chat, Team Mail (distinct from personal email), External Mail, Wiki Page, Channel OneNote and Personal OneNote) to different default locations (right) i.e. not within any logical Site/Folder structure your organisation might have created. So in addition to any other place you have content (File Shares, Confluence, Flowdock, GoToMeeting, Slack, WebEx, Trello, DropBox), Teams will create for you, all on its own, a bunch more.

Data Type	Microsoft Architecture Storage Location
Group Chat	Office365 Exchange – Team Mailbox
Channel Chat	Office365 Exchange – Team Mailbox
1:1 Private Chat*	Office365 Exchange – Personal Mailboxes of participants in Chat
Team Mail	Office365 Exchange – Team Mailbox
External Mail sent to Teams (with or without attachments)	SharePoint Team Site – Shared Document Library
Wiki Page	SharePoint Team Site – Wiki Page Document
Files attached to 1:1 (Private) Chat Sessions	SharePoint Team Site – Shared Document Library
Files Shared in Team Library	SharePoint Team Site – Shared Document Library
Channel OneNote	SharePoint Team Site – Site Assets Library
Personal OneNote	OneDrive Document Library

Open Slather Delete

Having created that content, the 365 default configuration also allows any member of a Team to delete a Team Channel, and with it much of the content.

While related documents will remain in the associated SharePoint Site, albeit in the Teams default location, other content including Channel conversations (chat) is (after 21 days) permanently deleted. How does that fit with your compliance/audit obligations?

(Continued Over)

CONTENT MANAGEMENT

Google Drive & Dropbox

By default, Teams enables a user to save content directly to their personal Google Drive and/or Dropbox. (The image below is a screenshot from within the environment of corporate site where I saved a Word document titled: 'Very Important Document' to my personal Google Drive (note the document contained no content, it was just for an example. Please don't shoot me!). Again the reader can likely draw their own conclusions regards actual or potential issues.

Apps

By default there are over 200 different 'apps', (both Microsoft and 3rd-party) a user can 'add' to their Team. While many are really useful, others represent that classic 'ShadowIT' risk where a user can simply buy (with their credit card) and/or install a 3rd party app and then fill their boots creating and saving content to heavens-knows where.

The Dark Side Conclusion

In conversations with many SharePoint administrators, they reported that the default Microsoft self-service approach resulted in a bunch of intractable problems including: a proliferation and duplication of Teams, SharePoint-Sites and associated content (in one case thousands of Sites in just a few months, and content outside their corporate structure and sitting in the various Of365 default locations); other content subject to New Zealand's GCSB information security classification residing in insecure third-party locations including Google and Dropbox; difficulty for Users navigating to and finding content; duplicated content (though to be fair, this is not new); inappropriately deleted content; plus a change management legacy i.e. having rolled out all the functionality by default as an 'all you can eat buffet', users were unhappy when they had to go on a diet i.e. when functionality was managed or disabled.

Implementation Approach

In the introduction we asked the question: 'can we have our cake and eat it' i.e. is there a sweet-spot that provides the maximum amount of Office 365 capability while mitigating the issues discussed above. Here is my recommended high-level implementation plan to do that.

Disable Google and Dropbox

Disable them (they will disappear from the UI). Yes, technically a user can still log-into and save content to Google or Dropbox anyway (though many organisations block the latter) but removing the option for the Teams UI avoids any confusion having it as an option.

365 Groups Strategy

Possibly the most important action. You have more or less three options:

1. Enable self-service group creation for all users (default setting)

This is the Microsoft default setting giving you the issues described above. Think toddlers at an all-you-can eat buffet birthday party. What could possibly go wrong!

2. Limit self-service group creation to a select pool of users

This is my recommended approach.

This approach would create a security group containing only a small/select number of specific users. It might include your Helpdesk staff, your IM Team, some existing SharePoint Site Administrators and a small group of 'in the business' IM Subject Matter Experts. Self-service group creation is disabled for everyone else. Users wanting a new Group, Team or Site will need to go through their local, team-based SME or one of the other support channels (IM, Helpdesk etc.) with a streamlined process.

This process tips on its head the default Microsoft approach, and for good reason.

3. Disable self-service Office 365 group creation entirely

This is a 'chop off your nose to spite your face' option. This has three major trade-offs:

■ There will be an administrative overhead with someone (Helpdesk/IM Team) forced to deal with a constant stream of requests from Users wanting Groups, Sites or Teams

■ User will use other methods and approaches to do stuff, thus contributing to "shadow IT".

■ It stymies the value behind rolling out by Microsoft Teams in the first place

Each option has pros and cons depending on your perspective; i.e. User, Helpdesk Team, IM Team.

Group, Site and Team Creation Process

This process is undertaken by one of the people in the security group described above.

■ Encourage User to search for an existing Team they can join. Failing that………..

■ User makes a request, with brief description/reason/purpose for (Group, Team, SharePoint Site - Develop some simple Team and Channel creation and naming criteria/guidelines that your Security Group follow (use the KISS approach!)

■ Is there an existing Group/Team? – there might already be one they can join?

■ Do they need:

  • Group only (just for email) or

  • Group and SharePoint Site Only or

  • Group, SharePoint Site and Team

■ IIM/SME Security Group member:

  1. Creates new Group (name it based on guidelines) and add requester as owner (Group owner/members can add other members later; or user can join a Public Group themselves)

  2. Creates a new SharePoint Site (in the appropriate place within the agreed organisational structure

  3. Creates a new Team off the SharePoint Site.

Key Distinctions Using This Approach

■ Step 2 and 3 above are key. Rather than Teams creating a SharePoint Site in a random location, using the above process first creates the SharePoint Site in the appropriate part of your organisations SharePoint structure, and then hangs the Team off the Site (rather than the other way around)

■ Content saved from Teams automatically goes to the right place

■ Automated Governance (Metadata, Information Security, Retention & Disposal proceeds as before)

■ Team members still get their Team with all the requisite functionality

This approach gives you the sweet-spot, maximising Teams capability while still having appropriate Governance.

Review Apps

Above we mentioned there are over 200 Microsoft and 3rd party apps available for Teams. While most will be benign from a security point of view, others will have tabs, connectors, bots, or any combination thereof that are or could be sending sensitive or confidential organisational information. I recommend a semi-permanent Working Group comprising Information Management, Security, Technical and User representation to agree criteria for enabling and/or disabling available Team Apps.

First, do a high-level pass to categorise apps in three categories, some like:

■ Yes, full your boots

■ Maybe, tell me why (with a process similar to Team/ Group request)

■ Not over my dead body (apps that duplicate existing capability, or pose some other security risk)

Evergreen & Change Management

With the release of Windows 10 software-as-a-service platform, Microsoft moved to an 'evergreen architecture' (PWC description right).

This is a double-edged sword. Microsoft can and do update, change, move and remove 'bits' of the overall system at will. While they might argue that such changes are in the various release notes, whoever reads those! Yes, while this approach reduces the IT support overhead, it can compromise your existing change management approach, particularly around training and support.

By way of example, while working with a customer on their 365 migration, the 'Protect' tool (right) appeared one morning on the Office Apps (Word, Excel, PowerPoint) Home menu-bar. On opening this it included the options: 'Custom Permission', 'Track and Revoke'. While one of these options did nothing and the other took you to an innocuous Microsoft website, there was no context for users. Worse, in the several weeks it took to pull together a meeting of appropriate IM, Security and Change Management staff, discuss and agree options; a subsequent Microsoft upgrade removed the Protect Tool!

Regular evergreen rollouts by Microsoft can also impact training and comms materials where written and screen-shot information can become outdated literally overnight, without warning.

There is not much you can do about this excepting:

■ Include an explanation of the 'evergreen' Microsoft approach, including unexpected changes, in your training and comms, indeed encourage users to report/blog what they find

■ Use a 'good enough is perfect' approach to your training materials

■ Expect change and be agile and adaptive

Read anything here you want to discuss? Please feel free to call or email. The first conversation is free.

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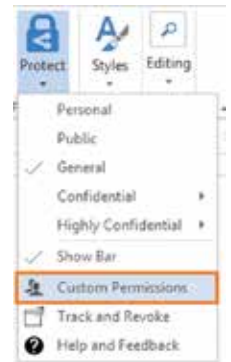
University Challenge for Office365 Governance

More than a year on from a rollout of Office365 at Griffith University IDM asked Gabrielle Ingram, Manager Productivity & Information Management, to reflect on the Information Governance challenge. Utilised by staff, students and alumni spanning six campuses in South East Queensland, the E3 edition now supports more than 200,000 Exchange mailboxes, 79,000 OneDrive accounts and 8,000 SharePoint sites including Teams.

Gabrielle Ingram, Manager Productivity & Information Management,, Griffith University

IDM: What are some of the unique challenges with information governance and Office 365?

GI: You're dealing with an evergreen environment, so what something looked like yesterday isn't the same as what it will look like today and the capability won't be the same tomorrow. And that's a good thing because Microsoft is investing significantly in its governance toolset.

Certainly, what we could do in the governance space 18 months ago has matured dramatically to make Office 365 a contender in an EDRMS replacement space, depending on the risk profile of the organisation.

I think the fact that Microsoft are consistently evolving this base makes it an exciting space to work in. The flip side to that is you have to be on top of your game to keep up-to-date with all of those changes and the demands of the business users.

IDM: Do the native governance capabilities in Office 365 help?

GI: I like the fact that you can apply default retentions to repositories but then nuance that when necessary. For example, our IM team automatically know that our SharePoint Online sites have a 7-year default retention period applied. However if they are working with an internal business area and come across information that requires a longer retention period, they can make the determination to apply that longer period to the Site or Library level, and that's a powerful capability for in-place records management.

It does mean you compromise slightly and capture the valuable info as well as the non-valuable, but if you think about the traditional environments for unstructured

information - your network drives and maybe Google Drive or Dropbox - there was almost no governance out-of-the box with those repositories, or at the very least that capability rested with IT and not IM. The baseline governance options in Office 365 immediately improve that situation.

We're also implementing data loss prevention policies to manage data egress without getting in the way of our staff doing the business activities they need to undertake. For example, if someone sends an email containing sensitive information (bank account numbers), we will automatically detect it, and rather than blocking or warning them, we will automatically use Outlook Message Encryption to securely send the message.

IDM: Is there a challenge managing Office365 Groups?

GI: In our first iteration we provided a lot of freedom for users to create Groups with baseline retention and group expiry configured. We're about to implement a few changes to the group naming policy and determine at the time of creation if it is a student or staff member creating the O365 Group and automatically differentiate the naming convention accordingly.

This will provide some better oversight capability. We can then investigate configuration options to nuance the retention. Whilst this capability is native to 3rd party governance applications, Griffith didn't go down that route, so we are iterating as we go in terms of how we can better manage our Groups.

IDM: How many are on the information management team at Griffith and how has Office 365 changed the way you work?

Prioritising Office365 Governance and Configuration at Griffith University.

GI: There's 17 in the broader team. This sounds large but Griffith is a little bit differentiated in terms of the structure of the Information Management team in comparison to other organisations.

Broadly it consists of a Business Enablement Team (BET), Records Services, Productivity Applications and Digital Adoption.

BET is our information management team on steroids! They are consulting with the business users on how they manage their information in an Office365 environment. They are analyzing business practices, providing advice on the best options to work more productivity and digitally, and deploy solutions which can include SPO site configuration, workflows, PowerApps, deploy digital signature capability or data visualization with Power BI.

They also run their information management lens over the work to ensure the right retention periods are assigned. To do their job well they also need to digest the evergreen changes from Microsoft to ensure our self-help materials are kept up to date, to understand the new capabilities and how they might benefit the user community at Griffith in becoming more productive.

Our Productivity Applications team administers the technical aspects of O365 applications. This team would usually be located in the traditional IT part of the business, but in determining our O365 support model it made sense to co-locate with IM as they work very closely with the Business Enablement Team.

I think that reinforces that Office 365 is about people working with information and the technology is just the enabler.

We use Content Manager 9 for management of high risk/ high value records and the records management team has largely been unaffected by the implementation of Office 365. However, the role of my EDRMS Systems Administrator has also morphed to include administration of e-discovery in O365, and management of the information compliance features such as retention, data loss prevention policies and compliance monitoring. This provides job enrichment and takes them out of that traditional EDRMS space. For me as the manager of Productivity & Information Management, my day-to-day role has morphed quite significantly over the last 18 months. The IM profession has been pondering the new skill set required for the modern IM professional in the changing information landscape – Griffith is already living the reality.

IDM: What are some of the other major challenges you face in managing information at Griffith University?

GI: Griffith, like any University, has a very diversified portfolio of functions and activities across research, teaching and learning and corporate business. Our application portfolio naturally includes a significant number of cloud-based line-of-business applications which doesn't natively integrate with our EDRMS and are definitely not built with records management in mind.

The sheer volume of information is obviously also a challenge. For any organization to adequately address their legislative records management obligations, at the same time adequately protecting their information assets, they will have no choice but to start looking at smarter ways to manage their information. There are emerging AI capabilities for in-place appraisal and identification of high risk/ high value information assets which will be worthwhile investigating in the near future.

The IM gig keeps getting wilder – exciting times!

Intersections between Records Management and Security Management

By Rachael Greaves, CEO, Castlepoint Systems

In most organisations, the records management team and the information security teams are separated, primarily because information security is seen as a technology function, and records management is not.

But good records management requires effective security management, and good cybersecurity practice relies on appropriate recordkeeping. By considering the ways in which these two domains intersect, we can make the case for closer collaboration, if not connection, between these roles.

Consideration of the three key principles of information security – confidentiality, integrity, and availability – shows how aligned security and records can and should be.

■ Confidentiality is the protection of information from unauthorised access, both within and outside the organisation

■ Integrity means the protection of the veracity and traceability of information, so that it has evidential value, and is a true representation of the organisation's work output

■ Availability is the ability to access the right information at the right time.

In the security world, threats to the CIA triad are mitigated in varying ways. Confidentiality risks are managed by applying strong access controls, and protecting systems from penetration. User education is also key here, as most data

spills are accidental.

Integrity risks are managed by keeping audit trails and shipping logs to secure locations. Privileges (not who can access something, but rather what they can do with it when they do access it) are also controlled to reduce the likelihood of deliberate or accidental damage to information.

And availability risks are managed by having highly available systems that can stay online in the event of an attack, or by at minimum keeping backups that can be restored if data is deleted or encrypted maliciously.

Records managers may not have much involvement in the establishment and management of ICT security systems, but they will be familiar with all of these concepts.

Confidentiality

Part of the records management lifecycle, as described in the *ISO 15489 Information and documentation -- Records management*, is Access and Security Classification.

The Standard states that:

4.2.5.2: ...Reasonable security can be described as the level of security that a reasonable person on the street would believe is needed to protect the information from unauthorized access, collection, use, disclosure, deletion, alteration and/or destruction.

Access must be restricted to protect personal information, intellectual property, commercial interests, national or state security, legal, financial and other sensitive information. And the best way to reduce the possibility of inappropriate access to sensitive information is to dispose of it as

soon as possible – sentencing and disposition are as much a key part of confidentiality risk-management as access control is.

So confidentiality is a records-management function, as much as an IT security function. But there is evidence to show that neither side of the aisle is doing a great job at managing confidentiality (and may actually be getting worse at it):

*Of the four focus areas for protective security, information security remains an ongoing challenge for the Australian Government, with NCCEs reporting an average compliance of 85.26% for the PSPF information requirements. Of note, in 2017–18, there was a **5.19% reduction in average compliance levels** with INFOSEC3. INFOSEC–3 contains policies and procedures for the **security classification and protective control of information assets**.*

Source: PSPF Compliance Report 2017–2018

Since June 2019, there have been confidentiality breaches of sensitive records at the Australian National University, Australian Parliament, PayID, Bupa, MyKi, TAFE NSW, National Australia Bank, GeelongPort, Symantec, the Australian Catholic University – and the list of notifiable data breaches numbers 460 for the first half of 2019 alone.

Integrity

Records managers are very familiar with integrity, in the context of maintaining a true and complete record of changes to information over time, such as can be used to show reliable evidence of decision making, consultation and activity. This is important for in extremis cases such as legal defences, but also for more general support of information quality and trustworthiness.

From ISO 15489:

5.3: Evidential Weight

Records managers need to have readily available evidence to demonstrate and prove the organisation's compliance with legislation, policies and procedures throughout the life of the system…. This evidence would be available from records of the monitoring and auditing of the system process.

So records managers need comprehensive system logs in order to be able to confirm the integrity of records. Security managers know that the first metadata to be compromised in the event of a system attack are the logs – hackers will make sure to delete evidence of their activities from the logs promptly to evade detection. But some systems don't create detailed logs in the first place, or if they do, they are not saved for long. The Information Security Manual only requires system event logs to be retained for 7 years per the AFDA (absent now from AFDA Express v2), which is at odds with ISO 15489 records management requirements, where we need the logs to establish veracity for the lifespan of the record (which could be decades, or even forever in the case of archival records):

4.3.8: Use and Tracking

Use of the record is a records management transaction that may need to be captured by the system to form part of the metadata. Use of the record may affect its disposition status.

'Use and tracking' in the ISO means keeping a record of user permissions, access and security status, movement and custody, changes to classifications, and any actual use of the record. None of this is possible without good ICT security logging systems and practices.

Availability

What use is a record if you can't read it? Or find it?

Records managers are concerned with the availability of information assets, both to ensure that people in the organisation can make use of the significant investment in the IP already stored in their systems, but also to comply with the multiple legal obligations to provide records to other stakeholders, government and the community as requested.

Having access to the right information at the right time is such a critical part of successful operation that hackers have made an industry out of it. Ransomware is a growing problem in Australia and around the world. Recently, multiple Victorian hospitals were subject to a ransomware attack, disrupting surgeries and affecting administration. And Small to Medium Enterprises are most at risk – one report found that over 90% of Australian SMEs had been subject to a ransomware attack, the highest of anywhere in the world.

Enterprise-wide encryption attacks are hugely impactful, but information availability can also be disrupted in other ways. Poor management of user privileges, and lack of records compliance controls, means users of most systems can delete important records (both individually and *en masse*), and there is little that records or security teams can do about it. Most of the time, they won't even know it has happened. This gradual white-anting of records availability can be even more detrimental than big-bang data losses as, at least with a cryptovirus, there is a prompt to restore files from backup. Ad hoc record deletions are rarely restored, because nobody saw them go.

What is causing the gap?

The gap seems to be in the initial identification of sensitive information. While there will always be a zero-day vulnerability that we can't patch against, on the whole, IT security teams do have the resources at their disposal to protect the confidentiality, integrity and availability of information, if only they are told what to protect. This is where records teams can do better, by understanding and cataloguing the high-risk information in their environment. IT can't do this themselves – in one example, a recent VAGO Audit found that:

*[Water control] systems [are **exposed] to the risk of a successful cyberattack**, particularly by a trusted insider or an intruder breaching physical security and gaining unauthorised access.*

*Water providers have not completed a detailed assessment of the current security risks for control system assets and **do not have comprehensive asset information.** They have focused their attention on risks to their corporate systems and on high-level control system risks. Therefore, t**hey have not designed or built their control system security based on a thorough and detailed understanding of their assets**, vulnerabilities and risks to ensure security measures are proportionate to those risks.*

Source: Security of Water Infrastructure Control Systems

Trying to create 'a thorough and detailed understanding' of information assets by interviewing users or searching drives is not working. There is too much information, and it changes too rapidly, for centralised records teams to stay apprised of what is where. And the nuances of sensitivity are not always straightforward enough for general users to understand and proactively apply. Security analysts know,

for example, that all the records about perimeter fencing for a water pumping station shouldn't be made available to the construction teams building the gates, because there is a high ratio of organised crime in the construction industry in Australia, and those threat actors can make use of this information in various ways (including by selling the information to Foreign State Actors, who are very interested in Australian critical infrastructure). General users don't necessarily know this, and wouldn't think that information warranted special protection. We can't expect users to know everything that is sensitive, let alone apply the right sensitivity metadata or tags to it.

There is also a gap in technology. Important business records are now spread across more systems and platforms than ever before, and most of these systems don't have easy facilities for managing record integrity (versioning, audit and event logs, monitoring and audit capability) or record availability (identifying or preventing deletions, effective backup and restore features). ICT security managers may be able to access centralised systems that help with the enterprise-level confidentiality, integrity and availability triad, but the outputs of these are often not granular or accessible enough for records managers to make use of.

What's the solution?

The importance of an information asset register cannot be overstated. The NSW Audit Office recently made recommendations to all state agencies related to asset registration:

Agencies are not proactively identifying sensitive data held and where it resides

Sixty-eight per cent of agencies maintain an inventory of their sensitive data. However, this may not be a complete inventory.... We also found that the process whereby agencies identified their sensitive data was not always comprehensive. Generally, agencies relied on common processes such as reviewing existing documentation (e.g. data flow diagrams) and business process walkthroughs to identify sensitive data.

The use of common processes to identify where sensitive data is held **increases the risk that not all sensitive data will be identified**, *meaning it may not be adequately protected.*

Agency processes to identify whether data is sensitive needs to improve

Only 74 per cent of the agencies performed a risk assessment as part of their sensitive data identification process to determine the data's criticality and sensitivity. Of these agencies, only 81 per cent had performed another level of review to assess the potential impact of the data loss to the agency.

Without a comprehensive risk assessment, data sensitivity **may be inappropriately classified** *and resources may not be allocated to the highest risk data.*

Source: NSW Auditor-General's Report to Parliament – Internal controls and governance 2019

Macro-level registers do have some value, in that they identify systems and the types of information likely to be in those systems. Once the risks and regulatory requirements relevant to those types of information are understood, this information can be overlaid to show which systems are likely to have what risks. This can help the ICT security team prioritise preventative (intrusion protection, privileged access control) and detective (audit, monitoring and DLP)

activities over those data sets.

However, while this is a helpful start, it is not enough for particularly high-risk information assets. Where the risks of a confidentiality breach are most significant, we need more granular control. We recently ran an audit using our software over a file dump of around 30,000 'unclassified' documents provided as test data for a project. Hidden within that 30,000 were over 100 that should definitely not have been in the public data dump – they contained commercial-in-confidence information, or were FOUO, or contained sensitive PII. Yet these files had been selected specifically because they appeared, to all intents and purposes, to be unclassified. They were stored in unclassified systems, and had nothing indicating sensitivity in their titles or metadata.

■ To really manage **confidentiality risks**, we need systems that can not only identify high-risk records automatically, but also track and alert on them. Records managers need to be told when a sensitive record is due for disposition, so its removal from the network can be expedited if possible; and be alerted when a sensitive record is created or saved in an 'unclassified' system or file.

■ To manage **integrity risks**, we need systems that independently record and maintain metadata and audit events on all records, centrally and securely, where they won't be lost as part of the routine systems maintenance activities. This metadata has to be at hand for records managers to use for evidentiary purposes, even (or especially) when records have been kept in systems with poor inbuilt logging and audit features.

■ To manage **accessibility risks**, records managers also need to know when a high-risk or high-value record is deleted, is moved, or has its access rights changed, so that they can either prevent (or immediately recover from) unauthorised loss.

Conclusions

Even where someone in the records team does have time to review and curate individual documents, unless they look inside each one, and they understand the threat environment, they are likely to let a lot of high-risk information through the cracks. The traditional ways of identifying, tracking and controlling high-risk information assets aren't working any more. The only way to manage this problem, considering the scale of our current data holdings, is intelligent automation.

Security teams, who understand the threat environment and can apply the right technology controls, need to work hand in hand with records managers, who should know what, and where, all our information assets are. Using modern technologies, these two cohorts must work together to find and control sensitive information, and so reduce both the likelihood and the impact of a data breach.

Rachael Greaves is a Certified Information Professional (CIP), Certified Information Systems Auditor (CISA) and Certified Information Security Manager (CISM), and is certified in project, change and records management. She is the cofounder and Chief Executive Officer of Castlepoint Systems. Rachael has consulted on large-scale records, security and audit projects in government and regulated industries with complex integrated environments, and developed Castlepoint in response to the tension seen in organisations between compliance, usability, sustainability and cost. Rachael's mission is to improve outcomes for citizens and stakeholders by helping governments and regulated organisations to provide better, more accountable services.

Improving Information Security with ISO 27001

How can your organisation demonstrate that it has taken the appropriate steps to ensure data management is under control and customer data and third-party information is secure?

For an increasing number of companies worldwide, the first step is to adopt internationally recognised standards such as ISO 27001, which outlines the requirements for establishing, implementing, maintaining and continually improving an Information Security Management System (ISMS).

The ever-growing cyber threat to organisations worldwide is behind the increasing trend towards adopting a robust ISMS.

ISO 27001 is an international compliance framework set by the International Organisation for Standardisation (ISO), the world's largest developer of voluntary international standards, and the International Electrotechnical Commission (IEC).

ISO 27001 is designed to help organisations manage their information security processes in line with international best practice while optimising costs.

It provides the specification for managing information security through working arrangements, policies, procedures and other controls involving people, processes and technology to help organisations protect and manage all their data.

Certification to standards such as ISO 27001 bring a wide range of benefits above and beyond simple certification. According to the ISO 27001 Global Report 2018, 81 percent of organisations implementing an ISMS are doing so to meet growing client demands for increased data security, while 62 percent reported improved staff awareness of information security as one of the key benefits of implementing an ISMS.

Over the past 10 years, the deployment of ISO 27001 has spread significantly.

ISO 27001 certifications have grown the highest in New Zealand (286%), Australia (203%) and China (78%). The top countries in Asia Pacific with the highest growth in volume are China, Japan, India, Australia and the Philippines.

Citadel-IX and ISO 27001

The Citadel Group provides a range of highly secure information management systems to support organisations in complying with international standards for information security.

Citadel's Content Manager as a Service platform, Citadel-IX, is fully certified to ISO 27001, the international standard for Information Security.

Citadel-IX's unique value proposition is that it is ISO 27001 certified from end-to-end, whereas many other vendors are claiming ISO 27001 compliance simply by hosting their application on an underlying hosting platform that is ISO 27001 certified.

Popular global cloud hosting platforms specifically exclude applications hosted on their platform from the scope of their ISO 27001 certification. In order to achieve full compliance, vendors must be certified and implement and maintain a rigorous Information Security Management System that addresses all security risks associated with hosting an application in a secure manner.

The security features of Citadel-IX include:

■ A dedicated 24/7 Security Operations Centre based in Australia that provides cyber security protection and detection capabilities

■ A robust Information Security Management System that enforces ISO 27001 standards to ensure a defence-in-depth approach to security including extensive security and access controls to improve privacy for managed content

■ Access controls to the Citadel-IX environment that follow industry best practices using modern authentication methods

■ Secure hosting infrastructure that applies the industry recognised Centre for Internet Security (CIS) Hardening Benchmarks

■ Incident management and response processes that ensure attempted breaches are appropriately handled and acted on in a timely manner

■ Disaster Recovery achieved through geo-redundancy using the built-in Azure services spread over multiple datacentres

https://citadelgroup.com.au/citadel-ix/

A Backup is not an Archive ... But, a Cloud Archive can be an Effective Backup

By Bill Tolson

I first wrote about the differences between backups and archives almost 20 years ago. At the time, organizations were struggling to get to grips with the requirements to retain electronic records and the new-fangled world of e-discovery.

So why are we still talking about this? And, more importantly, what's changed? One word – cloud! And the right to be forgotten – more about that later.

With the continuing flood of data piling up across organizations around the world, many are turning to the cloud as part of a long-term storage strategy to keep pace with the vast amounts of data they must store, manage, and share.

Most of the organizations that I work with are archiving inactive or little accessed data to cloud archives for regulatory and legal compliance reasons, while keeping active data on-premises for daily use. No surprises there. However, they're are also utilizing cloud storage for the storage of system backups – instead of storing and managing months or years' worth of backup tapes in third-party warehouses.

The right to be forgotten

Backup strategies have become a much more complicated thanks to the proliferation of new privacy regulations: both the GDPR and CCPA privacy regulations include a "right to be forgotten" (right to erasure) provision.

The right to be forgotten is a theory that was first put into practice in the European Union (EU) in May 2018 with the General Data Privacy Regulation (GDPR). The following year, the State of California included the right to be forgotten in their California Consumer Privacy Act (CCPA) regulation, which became active on January 1, 2020.

The right to be forgotten specifies that companies collecting, selling, and holding personal information (PI) on EU or California citizens must find, report on, and delete (when asked) all PI that can be used to identify the data-subject - if deleting the PI is not prohibited by regulatory or legal responsibilities.

These laws target PI in email systems, in marketing and sales CRM systems, on SharePoint servers, on employee desktops/laptops, corporate social media accounts, cloud repositories...anywhere.

Companies face two main issues dealing with the right to be forgotten:

■ First, while data-subjects have the right to demand their personal information (PI) be completely deleted, can the company actually find all target personal information for a given data-subject in the allotted time?

■ Second, if the data subject's PI is also stored on backup tapes, is there a legal expectation to search all backup tapes that could contain the PI, find it and erase it - again in the allotted time?

The GDPR authority has not directly addressed this question and a legal precedent has not yet been established in the EU courts. Interestingly, in one of the last amendments to the CCPA, the State's Attorney General's office included the following addition to the regulation to address the backup question:

"[i]f a business stores any personal information on archived or backup systems, it may delay compliance with the consumer's request to delete, with respect to data stored on the archive or backup system, until the archived or backup system is next accessed or used."

The phrase "... until the archive or backup system is next accessed or used" does nothing to clarify the issue and has not provided any further guidance with regard to determining when an archive or back-up system is accessed or used.

This raises the possibility that any data newly stored in an archiving or backup system could create a duty to erase PI immediately upon the next use. This is problematic when you consider that archiving systems are accessed many times a day while backups are accessed at least nightly. So, this CCPA amendment did nothing to offer guidance to companies on this question.

One prevailing opinion is the following: archiving systems are designed to allow file-level search and actions quickly so the deletion of PI in an archive should be almost immediate, while the CCPA amendment addressing PI deletion on backup tapes could be read in two different ways.

Does the amendment assume PI deletion the next time the backup system is used – which will be daily for most companies? Or does it mean that the next time a specific backup tape is used for a restoration?

Gartner Research looks at the question of deleting PI from archives and backups by dividing it up into proactive remediation and retroactive remediation stages. Active and archive record with PI should be deleted immediately while backups should be handled in a retroactive manner i.e., as backup tapes with specific PI are used for data restoration, only then is the requested PI removed from the tape.

This retroactive PI deletion process does not seem to meet the true intent of the right to be forgotten however it does take into account the actual technical issues with backup tape PI deletion. Again, the various regulatory authorities will need to address this soon.

A second issue revolves around how to delete a specific piece of PI from all backup tapes on which it is potentially stored. To address this ongoing question, let's go back to basics and review what a backup and archive actually are.

What is data backup vs an archive?

Historically, organizations have treated backup and archiving as separate processes. The backup process was originally created for disaster recovery.

Backing up is the process of making a copy of operating systems and data resident on servers and storage repositories for the purpose of restoring the entire system (OS and data) to the affected server in the event of system issues. For example, an email server becomes corrupted, and the server OS, email application, and message store needs to be restored as soon as possible.

> ## Historically, organizations have treated backup and archiving as separate processes. The backup process was originally created for disaster recovery.

The biggest problem with backups is data that can be lost between backup cycles (usually 24 hours). In the email server example, the email sent and received between backups is permanently lost when the email server is restored using the last backup data set- also referred to as the recovery point objective (RPO).

The backup is usually performed utilizing a backup application that creates its own custom-formatted data container – meaning it is very difficult to search for and act on specific files in a backup file. In reality, the backup must be fully restored to the server to search and act on specific files.

On the other hand, the archiving process stores a single copy of individual files for long-term storage and management for legal, regulatory, and business reasons. A key distinction here is that individually archived data, if stored in its native format, is easier to search for and act on.

Even today, some organizations continue to rely on back-ups as a substitute for low-cost archives. While the cost of backup storage has continued to fall, finding and restoring these individual files can be extremely slow and expensive.

 For example, the estimated cost to restore, search, delete PI, and create a new backup tape can range between $US1,000 and $US3,000 per tape. Imagine how many of your organization's backup tapes contain a particular data subject's PI…

Backup in the Age of Data Privacy Regulations

Every organization backs up their servers, data repositories, and other enterprise systems. All of these systems will include personal information that could be subject to the right to be forgotten. The main question you should ask yourself is this: does the right to be forgotten include PI on enterprise backups, and if yes, does your company have a tested and documented process to do it?

There continues to be a debate about the practicality of establishing a right to be forgotten (which amounts to an international human right) due in part to the breadth of the regulations, the potential costs to implement, and the many other issues left unaddressed.

However, both the GDPR and CCPA are now law, and specific questions will need to be addressed in the courts. Until these issues are clarified, companies will need to decide if they are willing to "roll the dice" and leave requested PI to remain on backups indefinitely.

So is the common practice of backing up servers and storage devices practical and still needed for disaster recovery? In limited circumstances, maybe.

The traditional practice of backing up everything and ship-ping tapes offsite is error-prone, cost-prohibitive, inefficient, and leads to over-retention and increasing eDiscovery risk. Nevertheless, companies still do it - and in many cases - they keep backup tapes for 10+ years.

Now with the introduction of privacy laws and the right to be forgotten, many are looking for new ways to protect their systems and data while also meeting the new privacy regulations.

Three potential strategies for data backup solutions

Expert opinion is all over the place, but eventually the GDPR and CCPA regulatory authorities will have to address this issue of PI on backup tapes directly. In the meantime, companies should consider three potential strategies;

■ Ignore the issue until the regulatory agencies issue guidance while hoping your company does not receive a right to erasure request.

■ Encrypt all PI with individual encryption keys so that when a right to erasure request is received, the encryption key for that specific data subject's PI can be deleted, making all of their PI unavailable forever, including PI on backup tapes – cryptographic erasure.

■ Or, instead of backing up data that contains PI, archive it so that it can be easily managed, searched, and deleted when needed while creating a backup of the various server operating systems and system files so they can be restored when needed.

What's really needed? A Cloud Archiving Solution

These days most organizations experience near-zero data loss because of natural disasters, equipment failures, etc. Due to the massive migration from on premises systems to the Microsoft Cloud and Office 365, including Exchange Online and OneDrive, much of the unstructured corporate data is already synchronized to the cloud, bypassing the need for backup. For those enterprise systems currently not cloud-based and that is still being backed up - such as departmental file shares, the obvious strategy is to move towards a cloud-based archiving solution for all work data so that most backups can be discontinued and more importantly, so PI can be found and deleted when requested - quickly.

Archive2Azure Cloud Archiving

Archive2Azure, a managed cloud archiving solution from Archive360, provides organizations with long term archiving and information management of active, low-touch, and inactive files—all managed to granular retention/disposition policies and available at a moment's notice. Archive360's Archive2Azure intelligent information management and archiving platform is designed specifically to effortlessly meet GDPR and CCPA data management and privacy requirements in a cost-effective manner. Archive2Azure takes full advantage of Azure Cloud security, geo-replication, DR, ML/AI, and Azure's three storage tiers; Hot, Cool, and Archive.

The Archive2Azure platform provides companies more control of their information management and compliance responsibilities, including responding to GDPR and CCPA data deletion requests - quickly while enabling companies to move away from expensive and risky on-premise data management and backup solutions and instead utilize their own Azure Cloud tenancy. By utilizing Archive2Azure, companies retain direct ownership of their data - something the proprietary "one size fits all" third-party SaaS cloud archives cannot do.

Bill Tolson is the Vice President of Global Compliance for Archive360. This article originally appeared at https://www.archive360.com

How to select the right Data Governance Tool

By Nicola Askham

There are many tools on the market now that can help you with your data governance initiative. In particular, there are numerous products that hold and manage your data glossary, data catalogue and data dictionaries. These have proved very popular and the number of players in the market has increased over the last few years.

If you are lucky enough to have the budget to purchase such a tool, please make sure that you're well prepared so that you can choose the right vendor for your organisation's needs. If you select the wrong tool, it won't help your Data Governance initiative and even worse it could distract from or even derail it!

To help you avoid making such a mistake I want look at some of the common pitfalls in DG tool selection and the kind of questions you need to ask your vendors, so that you are really clear on what you're looking for before you embark on a tool selection process.

Let's look at the most common pitfalls first. The three main ones that I've seen are:

■ Little or no business user involvement

■ Unclear requirements

■ Overly complex initial implementation

Taking each of these in turn:

Firstly, there's little or no business involvement early in the process. Many people wait until the tool is purchased and even being implemented before they involve business users. In my experience, this is a huge problem and should be avoided at all costs.

I have seen a few implementations go wrong because the eventual business users were not involved in selection. Think about it from their point of view. They have not asked for such a tool, nor does it help them to do an existing task more quickly or easily.

So, when you come to implement your shiny new tool, the business users feel they're having some IT tool foisted upon them. Generally, they do not react well and I can recall one instance when the whole implementation had to go back to the drawing board.

Once the business users understood what they needed to use the tool for, their requirements were vastly different from what had been delivered.

The second pitfall is being unclear on what you require of the tool. Often someone has latched on to the fact that a tool could help them and dived straight in and bought one without being really clear what they want the tool to do.

Please make sure that you take time to work out what your objective is from having the tool. Once you've worked that out, progress to defining some clear detailed requirements (just a requirement to have a data glossary is not sufficient).

Finally, another common pitfall is trying to make the initial implementation too complex. Some of the more established tools on the market have been around for a while and have evolved over time to provide a multitude of functionalities, all of which can facilitate and enable your data governance and data quality activities.

But please, when you're looking at selecting a vendor initially, be very clear what you want a tool to do now. Also, consider what you definitely want it to do in the future. Finally, you can make a "nice to have" list. Just make sure you take a thorough approach to determine clear requirements.

I've seen implementations of tools fail or the wrong tool selected because of vague or overly complex requirements (just because the tool does it, does not mean that your business really needs it).

Now we've looked at what the main pitfalls are. I wanted to share with you a few questions that would be useful to ask the vendors to ensure they're a good fit for you and your data governance initiative.

Since I've highlighted the need for objectives and clear requirements, the first question to ask them is, how does their tool meet your requirements. Notice I say how does it meet… and not does it meet. If you ask "does your tool meet our requirements", most vendors will say yes.

What you want to know is how. Is it simply out of the box functionality that is ready to go or will there have to be manual workarounds, or even worse a lot of customisation or configurations in the tool that may make future upgrades very difficult for you.

Secondly, I'd ask what implementation support will be given to you. You have to remember these tools are by their very nature, flexible, and you need to set them up in a way that works for your business. This means that you will need some support from the vendor.

So make sure that you are very clear upfront about what kind of support they will be giving you. Knowing what is and isn't covered will prevent any nasty surprises in the future.

Thirdly, ask what training they provide for both you and the team implementing it. Perhaps they may even support training your business users on how to use their tool. Definitely work out what training you want and ask what training is available.

Some final thoughts on how to choose the right Data Governance Tool for your organisation:

I've said it already but please remember that to successfully choose the right tool for your company, it is absolutely vital that you are very clear on what you need the tool to do before starting a selection process. Clear requirements should be the start of the process.

Make sure that you understand not only the support arrangements of the tool (as I mentioned in the last section) but also the upgrade path of the tool. I've come across more than one situation where an organisation has customised a tool to such a degree that is not possible to follow the upgrade path. On one occasion they needed a project to redesign and implement a new data glossary to be able to upgrade and take advantage of the new functionality.

Lastly, I would say that when you're working with vendors, going through workshops or maybe an RFP process you are going to meet a whole variety of personalities. Bear in mind that these are not the people that you will be working with if you choose and select this tool. Whether you like or dislike them, do not be swayed by the personalities. They will not be around for the implementation, and the ongoing support will be provided by other people. So don't let yourself be influenced just because you like or dislike their sales team!

Just remember that such tools can be great enablers to your data governance initiative, but they need to be put in place once your data governance initiative is already going so that you are very clear on what you want.

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ENTERPRISE GUIDE

ABBYY
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ABBYY is a leading global provider of technologies and solutions that help businesses to action information. The company sets the standard in content capture and innovative language based technologies that integrate across the information lifecycle.

ABBYY solutions are relied on to optimize business processes, mitigate risk, accelerate decision making and drive revenue. Thousands of companies process more than 9.3 billion pages of documents and forms annually using ABBYY technologies. ABBYY solutions and products are used by many of the largest international enterprises and government organizations, as well as SMBs and individuals.

ABBYY technologies are licensed by world-leading hardware and software vendors to provide Image Pre-Processing, OCR, Data Capture and Format conversion capabilities for their products.

ABBYY technologies and products, available on a number of platforms (mobile, desktop and server) and a variety of operating systems (Windows, Linux, Mac, iOS, Android, etc.), include FineReader, PDF Transformer, FlexiCapture, Recognition Server, Mobile Imaging SDK, Lingvo, and Compreno-based Semantic technologies.

Esker
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Esker is a global leader in cloud-based document process automation solutions. Esker's solutions are compatible with all geographic, regulatory and technology environments, helping over 11,000 companies around the world improve efficiency, visibility, and cost-savings associated with the processing and exchange of information.

Founded in 1985, Esker operates in North America, Latin America, Europe and Asia Pacific with global headquarters in Lyon, France and U.S. headquarters in Madison, Wisconsin and AUS/NZ headquarters in Sydney, Australia since 1997.

Esker's solutions span the order-to-cash and purchase-to-pay cycles — allowing organisations to automate virtually any business process:

■ Order Processing: automated entry and routing of incoming customer orders

■ Accounts Receivable: automated sending and archiving of paper and e-invoices

■ Collections Management: streamlined post-sale collection interactions

■ Accounts Payable: automated entry and routing of incoming supplier invoices

■ Purchasing: electronic processing and delivery of supply chain documents

Kodak Alaris
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Kodak Alaris is a leading provider of information capture solutions that simplify business processes. Digital Transformation is the need of the hour for many organisations, and it starts with information and data capture. We exist to help the world make sense of information with smart, connected solutions powered by decades of image science innovation.

Alaris drives automation through every business process dependent on document and data capture so that you can get the right information to the right place at the right time. Our award-winning range of scanners, software and services are available worldwide, and through our network of channel partners.

Docscorp
Tel: 1300 559 451
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DocsCorp is a leading provider of productivity software for document management professionals worldwide. Our offices and products span the globe with over 500,000 users in 67 countries. Our clients are well known and respected global brands that rely on DocsCorp for their technology needs.

Our mission is to provide document professionals who use enterprise content management systems with integrated, easy-to-use software and services that extend document processing, review, manipulation and publishing workflows inside and outside their environment to drive business efficiency and to increase the value of their existing technology investment. Our solutions include:

contentCrawler - intelligently assesses image-based documents in content repositories for batch conversion to text-searchable
PDFs, making every document searchable and retrievable

compareDocs - delivers unparalleled levels of efficiency and accuracy in the document comparison process
cleanDocs - provides a high level of confidence that metadata is cleansed from confidential or sensitive documents before being sent externally.

Epson
Contact: Clyde Rodrigues
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Epson is a global innovation leader dedicated to exceeding expectations with solutions for markets as diverse as the office, home, commerce and industry.
Epson's advances in scanning technology deliver the perfect balance of speed and reliability for image reproduction of unbeatable quality.
From compact mobile scanners to A3 flatbed scanners that operate at speeds up to 70ppm, the range is designed for a variety of demanding organisations where fast and easy document management is required.
Combine that with high productivity software that allows networking and 'scan to' options including the cloud, its versatile functions dramatically expand data usability and online document workflow.

FileBound
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FileBound is a cloud-native document management system with advanced workflow capabilities that automates the flow of enterprise work.
FileBound is able to be deployed in organisations of all sizes and features capture, document management, workflow, electronic forms, analytics, mobile access (IOS and Android) and much more. It presents in a single, easy-to-use application that manages business processes from beginning to end and reliably connects people and information.

FileBound provides organisational efficiencies, drives out manual paper-based processes to decrease costs, increase productivity and support compliance with internal and external mandates.

FileBound users have the flexibility to create a variety of solutions from complex AP automations to simple document archival and retrieval processes.

ENTERPRISE GUIDE

Kapish
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Kapish is a member of the Citadel Group (ASX: CGL). Citadel solve complex problems and lower risk to our clients through our tailored advisory, implementation and managed services capabilities. With over 250 staff nationwide and an ability to 'reach back' and draw on the expertise of over 1,500 people, we are specialists at integrating know-how, systems and people to provide information securely on an anywhere-anytime-any device basis.

Servicing both large and small, public and private sector organisations across all industries, our team of highly qualified staff have global experience working with all versions of Micro Focus Content Manager (CM). It is this experience coupled with our extensive range of software solutions that enable our customers and their projects to be delivered faster, more cost effectively and with more success.

At Kapish we are passionate about all things Content Manager. As a Tier 1, Micro Focus Platinum Business Partner, we aim to provide our customers with the best software, services and support for all versions of the Electronic Document and Records Management System, Content Manager. Quite simply, our products for CM make record-keeping a breeze

EzeScan
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EzeScan is one of Australia's most popular production capture applications and software of choice for many Records and Information Managers.

This award winning technology has been developed by Outback Imaging, an Australian Research and Development company operating since 2002.

Solutions range from centralised records capture, highly automated forms and invoice processing to decentralised enterprise digitisation platforms which uniquely align business processes with digitisation standards, compliance and governance requirements.

With advanced indexing functionality and native integration with many ECM/EDRMS, EzeScan delivers a fast, cost effective method to transform your manual business processes into intelligent digital workflows.

EzeScan benefits include:

- initiate intelligent automated processes;

- accelerate document delivery;

- minimise manual document handling;

- capture critical information on-the-fly; and

- ensure standards compliance.

INFORMOTION
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INFORMOTION is an innovative professional services organisation specialising in the design and implementation of modern information management, collaboration and governance solutions – on-premises, in the cloud or hybrid.

INFORMOTION's workflow tools, custom user interfaces and utilities seamlessly combine to deliver compliance, collaboration, capture and automation solutions that provide greater business value and security for all stakeholders. We can help you map and successfully execute your digital transformation strategy.

Boasting the largest specialist IM&G consulting teams in Aus-

tralia with experience that spans over twenty years, INFORMOTION consultants have a deep understanding of business and government processes and the regulatory frameworks that constrain major enterprises. Our compliance experience is second-to-none.

INFORMOTION is a certified Micro Focus Platinum Partner and global Content Manager implementation leader. We are also an accredited Microsoft Enterprise Business Partner, Ephesoft Platinum Partner and EncompaaS Diamond Partner.

OPEX
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OPEX is a recognised global technology leader in document imaging, high-speed mailroom automation and material handling. Since 1973, OPEX systems have provided performance enhancing workflow solutions and cost-effective results to thousands of organisations worldwide.

OPEX systems are designed for a wide variety of industries including financial services, insurance, healthcare, government, retail, non-profits, utilities, telecommunication, service bureaus, educational institutions, and fulfillment operations. OPEX has developed innovative prep reducing scanners that address the root causes of workflow issues our customers face. Minimising preparation, paper handling, and other manual tasks not only improves efficiency, but also results in superior transaction integrity and information security.

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.

UpFlow
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UpFlow is a channel-first provider of Document Capture, RPA, Document Management, Workflow, Electronic Forms and Integration software products and services.

UpFlow distributes and resells products such as PSIcapture, Flow Integration Platform, Ratchet-X RPA, Doc Mgt and FileBound.

PSIcapture is an innovative document capture platform engineered to combine automation, efficiency, stability and Enterprise-class scalability.

PSIcapture provides unmatched integration with just about any ECM or ERP platform [e.g. SharePoint, Xero, Trim, Objective etc.] and allows the utmost in flexibility for deployment in large or small organisations.

Ratchet-X is a mid-market Robotic Process Automation solution that provides attended or unattended Bots for the automaton of enterprise work.

Flow is a fully featured Integration Platform that can connect an exhaustive list line-of-business systems with each other. DocMgt and FileBound are Document Management, Electronic Form and Workflow platforms that deliver exceptional ROI for most work automation projects.

If you want to add high quality business automation products to your list of products and services then contact UpFlow today.

Titus Accelerator speeds Data Risk Detection

Titus has announced Titus Accelerator for Privacy to reduce financial and legal risk exposure by automatically identifying personal data and applying protection. It examines emails and files at the point of creation and solution takes advantage of machine learning to deliver a faster, more direct path to data privacy and compliance.

"Organizations of all types struggle to implement robust data privacy strategies because it's difficult to find – with a high degree of accuracy - all the places where sensitive data exists," said Jim Barkdoll, CEO of Titus.

"With Titus Accelerator for Privacy, we're introducing an important step toward a best-practices approach to data privacy while providing the missing link to broader data classification."

In a recent Titus online survey of personal data awareness, more than 22 percent of personal emails could be mishandled by end-users based on 253 responses to seven short email samples. According to TechJury, office workers typically send approximately 40 work-related emails and receive about 90 emails daily. For a company with 1,000 employees, this translates to 40,000-to-90,000 emails everyday with potential personal data.

Titus Accelerator for Privacy uses both content - and context - to search all types of data, including and beyond typical personally identifiable information. The software examines personal, financial, health, security and sensitive information in emails and files while enriching metadata to pinpoint why something is considered potentially at-risk personal data. Appropriate policies then can be applied to classify, encrypt or block the information from leaving the organization.

It can be deployed as a standalone solution or as part of an end-to-end data privacy strategy, encompassing data loss prevention, cloud access security brokers and next-generation firewalls.

www.titus.com

Data Preparation Platform

7Park Data, a provider of data transformation software, has announced the launch of its data preparation platform, powered by machine learning models trained for more than seven years on proprietary data sets.

 "Businesses know that they must harness their own data to compete and succeed, although most are only able to use around one percent of the data they have in their own walls," said Brian Lichtenberger, CEO and co-founder of 7Park Data.

"When we built our first datasets in 2012, we had many of the same challenges that companies face today - data is unorganized, incomplete and full of duplicates, and existing solutions lack the flexibility, speed and accuracy required to be truly effective. We're excited to bring our platform to other companies so they can unlock the potential of their own data assets."

Th platform creates high-quality, decision-ready data with three key solutions:

Data Deduplication and Matching: Clean, enrich and link data across databases. The platform has an F1 score greater than 90% on its matching and linking algorithms, and its natural language processing models are claimed to be 3x more accurate than Amazon Comprehend and other leading self-service data prep tools. With better quality data, enterprises can:

■ Improve operational efficiencies by linking and resolving entities across databases and establish consistent taxonomies;

■ Optimize compliance and risk management by resolving data inaccuracies and automating alerts;

■ Build customer 360 profiles to foster better experiences, services and products.

Intelligent Document Processing: Automate document processing of unstructured data to reduce manual labour on repetitive tasks, resulting in lower associated overhead cost and improved operational efficiencies.

Insight Engine: Boosts research and analytics productivity by reducing time that analysts, data scientists, and anyone who relies on accessible data spend on search and discovery, and increase the quantity and quality of insights.

https://www.7parkdata.com/platform/

Automation Anywhere updates document bot

Automation Anywhere has announced updates to IQ Bot, RPA-integrated Intelligent Document Processing (IDP) solution that runs in the cloud or on-premise. It now offers a large number of pre-packaged use cases out-of-the-box, designed to automate business processes that involve documents such as invoices, purchase orders, loan applications, insurance claims and many others across multiple industries. The new release also expands the user interface to support 10 languages and enables extraction from identification documents such as passports and industry standard documents for insurance, health claims and others.

"Organizations looking to transition to a digital enterprise require a solution that can intelligently process a large volume of documents involved in many business processes," said Prince Kohli, Chief Technology Officer at Automation Anywhere.

"IQ Bot's latest release further simplifies the automation journey by empowering business users to easily harness AI and machine learning to rapidly automate document-centric processes by themselves."

Updates include:

■ Expanding use cases: The new release adds support for identification documents, handwritten text in English and data extraction from industry standard documents.

■ Cloud-native for improved scalability: The RPA integrated platform offers customers end-to-end packaged solutions both in the cloud, via Automation Anywhere Enterprise A2019, and on premises for use cases such as invoice processing and others.

■ Infused with artificial intelligence (AI): IQ Bot leverages AI at each step of document processing and continuously learns from human feedback, simplifying automation of document processing.

■ New developer capabilities: Ability to incorporate developer written code such as Python scripts to improve extraction results for complex fields and tables, and to make them available via Automation Anywhere Bot Store.

ibml Unveils Speedy New Scanner
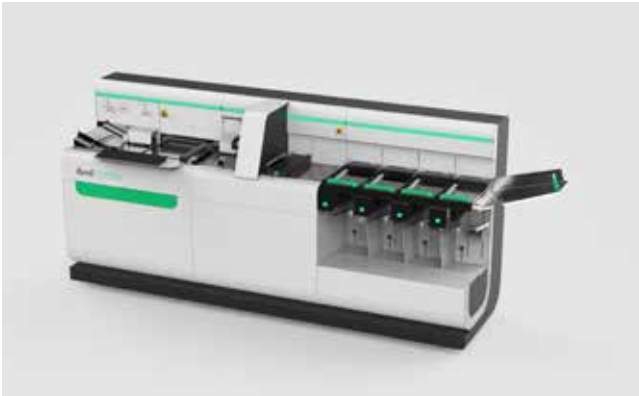
Imaging Business Machines, LLC (ibml) is claiming bragging rights for its new FUSiON range of high-volume scanners as the world's fastest, intelligent, scalable document capture platform with throughput speeds up to 730 A4 pages per minute.

In a survey by the Association for Intelligent Information Management (AIIM), 62 percent of organizations said they, "are committed to digital transformation."
Paper documents remain a large source of business input for organizations. Ever-increasing data volumes demand exponentially faster processing and ways to eliminate tedious and unnecessary pre-scan and post-scan labour, which eats 76 percent of total capture costs and drains operational efficiency1.

Built in the United States, the ibml FUSiON Series offers:

■ Real-time, in-line intelligence that helps understand documents, extracting data early in the process to minimize errors downstream.

■ The fastest throughput in its class; ibml FUSiON is 67 percent faster than its predecessor and allows customers to do mission-critical jobs in tight timelines and handle greater volume, driving better productivity and lowering costs.

■ New patent-pending ibml iQpro image processing technology optimizes image capture for better accuracy of data extraction from images.

■ Feeding enhancements and wider document track minimize exceptions and maximize the variety of document sizes that can be handled.

■ Patent-pending envelope detection reduces stops and increases productivity while allowing for reducing the need for separator sheets.

■ Motorized output sort pockets neatly stack sorted documents, reducing post-scan costs.

■ Document content-based dynamic printing creates smart audit trails for scanned documents, securing the chain of custody of documents.

■ User-centric design makes it easy to use, and user-friendly error alerts quickly identify problems, minimizing fatigue and improving productivity.

■ Smart industrial design maximizes system uptime with separated airflow systems that keep paper dust out of system electronics.

"ibml FUSiON was developed with our customers, based on a deep understanding of their pain points with different devices they use for high-volume document capture," said ibml Vice President of Engineering Pete Rudak.

"We then applied the right technology and innovation to solve those problems, and the result is ibml FUSiON, a comprehensive solution that combines a sleek modern design with the fastest speed, the highest image quality and the intelligence everyone expects from ibml."

www.ibml.com

Kapish updates Content Manager toolkit

Kapish has announced the latest releases of Easy Link, Folder Wizard, and Web Grid, designed to save users time and effort in sharing and organising Content Manager records. Easy Link 3.5, Folder Wizard 3.6, and Web Grid 2.01 are all verified as compatible with the latest Content Manager 9.4 release.

Easy Link provides an easy way to provide hyperlinks to Content Manager records. With the latest Easy Link 3.5, there are some new features designed to save users a lot of time. Users now see a sample link showing the default link which can be used as is or customised. Easy Link also has the added feature of generating a link to initiate an Action; and prompt for a workflow assignee, if the next activity is unassigned, to help make sure every step gets actioned. To find out more about all the features in this release, see the Release Notes.

Folder Wizard 3.6 delivers new features to make automating the creation of Content Manager records even easier. Users now have more configurability to override the template security and use the default record type security.

This release also delivers the ability to tag multiple records to 'Send To'; options for dealing with duplicate titles; and enabling sequential numbering for the number method by Container. To find out more about this release, see the Release Notes.

Web Grid 2.01 now delivers more responsiveness to search criteria in Saved Search as well as enhanced sorting functionality. Now more than ever, it is easy to dynamically publish lists of Content Manager content to an intranet, internet or SharePoint sites. To find out more about this release, see the Fixes and Enhancements Report.

FileMaker plug-in adds OCR

360Works has launched a new version of its document automation plug-in for FileMaker, Scribe 4!, which allows integration with Word, Excel, and PDF documents.

This release adds the ability to read scanned documents, such as receipts, forms, or contract PDF files, with OCR (Optical Character Recognition) functionality. It now offers the ability to merge PDFs and get meta-data from them, plus multiple fixes for existing functionality in Scribe.

The OCR functionality is provided through Amazon Textract and goes beyond basic OCR by not only extracting text but also identifying key information such as the contents of fields in forms. The new ScribeGetPDFAttributes function will return various meta-data about a PDF. This can be helpful if you want to have FileMaker manage PDF files according to the author or number of pages specified in the meta-data.

https://360works.com/filemaker-pdf-plugin/

Case solved with data in context

Why do digital transformation projects fail? Research by content capture and data discovery vendor Ephesoft suggests it is because knowledge workers are forced into being data detectives at each step of the business process, having to create their own links to contextual data as if leading a criminal investigation.

We are all familiar with the typical crime board used by investigators to tie together disparate data such as crime photos, index cards, maps and media reports. As a document flows through a business process it can require time-consuming investigation at each step along the way to link an application, claim or correspondence to related data.

Over the past 12 months Ephesoft has developed a solution it believes will shortcut the detective work in everyday business by leveraging artificial intelligence (AI) to assist decision-making.

The approach is known as Context Driven Productivity (CDP). Ephesoft's first cloud platform called Semantik will use CDP to identify unstructured content that is related to a document or workflow and then present it via a dashboard. It also provides a means to share the contextualised data with others via a multi-dimensional knowledge graph held on a secure cloud platform.

Ike Kavas, founder and CEO of Ephesoft, said, "Document capture has always been a small part of digital transformation, and I have watched many of those projects fail. McKinsey tells us the percentage of failed projects in digital transformation is as high as 70%.

"Ephesoft has spent a year researching why this figure is so high and we believe it's because knowledge workers are dealing with flat data without any context. Even if Ephesoft extracts data from a document and delivers it to business process automation, knowledge workers still must have multiple screens or tabs on their browsers to do their job.

"Once we realised that, we knew that that we needed to give humans or bots the bigger picture in a single view to accelerate decision-making and help with the digital transformation process.

"Our vision is to rid the enterprise of these flat data practices by providing new Context Driven Productivity (CDP) solutions needed to acquire, enrich and amplify semantic data that fuels automation processes and helps companies get the most productivity out of their automation investments."

Invoice processing is the first area to be targeted with a SaaS application called Semantik Invoice.

Ephesoft selected invoicing for its first Semantik Platform solution use case because the task is industry agnostic, paper-and-process intensive, and because Ephesoft has extensive experience in the accounts payable and accounts receivable spaces. Other industries and use cases identified as ideal targets for next-generation CDP solutions include mortgage origination, healthcare patient records, employee onboarding, tax form and insurance claims processing.

Semantik Invoice will be available to the Americas market in Q2 and is targeting a worldwide release later this year. Semantik Invoice not only extracts data from a particular invoice but it also captures the contextual information to connect it with other related data sources and content in the process—such as purchase orders, shipping manifests and other vendor related data. It ultimately presents this data and their relationships in enterprise knowledge graphs to fuel process automation and decision-making.

Ephesoft capture kicks off the workflow and then Ephesoft can provide connecters to applications and other data sources with additional capture capabilities on these sources as required.

When a document is viewed in context, the amount of linked data can be extensive, relating to a person or a vehicle or an address or other entity. Under the premise of CDP, Ephesoft's Semantik Platform enables a means to share that data via a knowledge graph that connects all of the disparate data.

"As this document progresses in a workflow the web of information will likely grow bigger, so you need a multi-dimensional dashboard that allows you to navigate through different levels of information at speed," said Kavas

"Many workflows are kicked off by documents but there are many other data points that our customers need and these can be structured or unstructured content, databases or ERP systems. Our goal is to bring in whatever data they need and have it viewable in a single pane of glass to assist our customers in a successful digital transformation initative."

"We used to be a document capture company. We are now a data management company," said Kavas.

To learn more about Context Driven Productivity or Semantik Invoice, visit ephesoft.com/context-driven-productivity.

SharePoint sharing made easy

Qnext Corporation has extended its FileFlex cloud platform to support remote access, sharing and collaboration of both on-premises and cloud-based Microsoft SharePoint files and document libraries. FileFlex Enterprise offers SharePoint file sharing and collaboration both with remote workers and with external parties such as vendors, partners and customers without using a VPN.

"Using FileFlex Enterprise to remotely access SharePoint document libraries provides a simple, easy-to-use and consistent user experience that spans all user storage, not just content on the SharePoint network," said Anthony DeCristofaro, president and CEO of Qnext.

This enables today's distributed workforce, while protecting the privacy of confidential information by allowing it to be kept on company owned storage devices, on-premises, behind the corporate firewall, in specific geographic regions and access controlled.

FileFlex Enterprise also provides SharePoint users easy 'single-pane-of-glass' remote access and file management between the SharePoint database and on-premises storage such as servers, direct attached storage (DAS), PCs, file transfer protocol (FTP), network attached storage (NAS), select routers and storage area network (SAN) devices. In addition, the FileFlex Enterprise dashboard integrates with Infrastructure-as-a-Service (IaaS) providers such as Amazon S3, Azure and Google Cloud and other company cloud storage such as public, private, EFSS and hybrid cloud storage.

Now, for example, from any remote PC, tablet or smartphone, a user can perform file management functions like cut, copy, paste, rename, delete and create a folder between SharePoint and all other company storage. And, as well, they can share any files that they have, stream any media or collaborate with file editing and locking. All of these activities are tracked and secure under the control and visibility of IT.

https://fileflex.com/

Kapish AutoMate is now CM 9.4 certified

Are you looking for a way to streamline your business functions through business process automation? Kapish AutoMate can automate tasks, reducing errors and increasing efficiencies.

Kapish AutoMate processes and automates repetitive Micro Focus Content Manager (CM) tasks. It is a modular service for CM task automation that is easy to install & maintain, all while reducing errors and increasing efficiencies.

Kapish AutoMate automatically processes specific tasks – what Kapish AutoMate does or the actions it performs, depends on the modules you install.

Content Manager task automation with Kapish AutoMate can perform file conversions, send email reminders and notifications, create CM folders and add renditions to records, just to name a few.

The latest release (Version 1.30.2336) delivers all Kapish AutoMate modules including Core, Notifications, Personal Workspace, Network File Capture, and Image Processing.

All existing customers, current with their product annual maintenance payments, are entitled to download the latest versions of the Kapish Productivity Suite from the Kapish website.

https://kapish.com.au/products/automate/

Lexalytics opens up Text Analytics

Lexalytics has announced that its entire text analytics and natural language processing (NLP) product suite is available for deployment in any computing environment - on-premises; private, public or hybrid cloud; or individual workstation. Previously, the only on-premises option from Lexalytics was its core Salience text analytics libraries, which are integrated into existing customer or BI applications. Now, Semantria, the company's text analytics RESTful API, as well as Lexalytics Intelligence Platform, a complete application for gathering, processing, modelling, analysing and visualising relevant information extracted from unstructured text, can also be deployed on-premises, in addition to a public or private-public cloud hybrid configuration.

While the majority of text analytics providers offer only a public cloud option, enterprise customers often require on-site, behind-the-firewall deployments for a variety of reasons, including more customizability, higher levels of security, lower levels of latency and when processing very high volumes of text data.

Lexalytics has seen its on-premises business grow at twice the rate of its public cloud offering. Industry analyst firm IDC recently reported that spending on private cloud IT infrastructure would grow at approximately 23.3 percent year over year in 2018 and spending on non-cloud IT infrastructure would represent 52.6 percent of the market.

"We're seeing a lot of demand from analytics teams within enterprises for a full text analytics stack, not only in the public cloud, but also in on-prem and hybrid environments," said Jeff Catlin, CEO of Lexalytics. "We're pleased to be one of the only companies to offer a solution for processing unstructured data for any environment."

Lexalytics also announced it is pioneering a new machine learning approach to text analytics that it is calling "micromodels." In any text analytics application, there is generally a small subset of phrases, concepts and entities that are difficult to correctly score or extract with monolithic "macromodels." These ambiguous terms can cause a drop in a system's accuracy.

For example, the word "tight" can mean many things in standard and vernacular English, from "strongly fixed," such as, "The lid is tight," to "cool," as in, "That video was tight!" and can have positive, negative or neutral sentiment, depending on usage.

Text analytics companies have traditionally approached this problem by training one monolithic model with large amounts of data. With micromodels, Lexalytics claims it can greatly improve accuracy by identifying the critical subset of terms unique to a particular customer or industry and creating micromodels for each term, dramatically reducing the amount of data and hours required to train the system. Lexalytics predicts that micromodels will approach 100 percent accuracy for certain words and phrases, beating a human's comprehension and other systems currently in use.

http://www.lexalytics.com

Elastic launches Workplace Search

Elastic N.V., creators of Elasticsearch, has announced the release of Elastic Stack 7.6.0, the latest version of the all-in-one datastore, search engine, and analytics platform. This release streamlines automated threat detection and brings performance improvements to Elasticsearch, which was launched as a beta in May 2019 and is now known as Elastic Workplace Search. Elastic has "up-levelled" Elastic Enterprise Search as the new "umbrella" solution name that encompasses its suite of search products. Workplace Search allows teams and organizations to search and discover all the content scattered across the many tools that power the modern workforce.

Elastic Stack 7.6.0 includes the launch of a new SIEM detection engine and a curated set of detection rules aligned to the MITRE ATT&CK knowledge base. It makes supervised machine learning more turnkey with inference-on-ingest features and deepens cloud observability and security with the launch of new data integrations.

Managing the search experience across multiple sites and business units can be a difficult undertaking for large companies. Elastic App Search 7.6 introduces meta engines, document-less engines that query a set of engines. With meta engines, organizations get the ability to unify search across multiple engines from a single search bar, while still allowing admins complete control over the behaviour of each individual sub-engine. This feature will be available on Elastic Cloud and the self-managed version.

Elastic has dramatically improved the performance of queries that are sorted by date or other long values by applying the block-max WAND optimization to sorted queries — a clever way to stop counting new results when they're clearly not going to change the results.

Sorting on time is one of the most common tasks in observability and security use cases. Chasing down an error in the Elastic Logs app or investigating a threat in Discover are just a few of the many things that will be faster by simply upgrading to 7.6. Elastic's goal with machine learning in the Elastic Stack has always been to make it so easy that anyone in an organization can use it. With the first release in 5.4, Elastic has made detecting anomalies as easy as building a visualization in Kibana — making this accessible to a broader audience and making data science teams even more efficient.

With 7.6, Elastic brings end-to-end supervised machine learning capabilities to the stack, from training a model to using the model for inference at ingest time. The goal is to make supervised machine learning methods like classification and regression in Elasticsearch even more turnkey for practitioners across observability, security, and enterprise search use cases. For instance, a security analyst can now build a bot detection model using classification and then use the new inference ingest processor to infer and label new traffic as a bot (or not a bot) at ingest time - all natively within Elasticsearch.

Elastic Security version 7.6 introduces a new SIEM detection engine to automate threat detection and minimize mean time to detect (MTTD). With Elasticsearch at its core, Elastic SIEM already reduces security investigation time from hours to minutes. With this new automated detection capability, Elastic is reducing dwell time by surfacing threats that would otherwise be missed.

https://www.elastic.co/

M-Files Links Salesforce to SharePoint

M-Files Corporation has unveiled a solution that integrates Salesforce with on-premises repositories and systems like SharePoint. The new integration is based on the M-Files Ground Link technology which provides a secure and easy way to connect cloud-based systems and repositories with on-premises documents and data.

M-Files Ground Link allows cloud applications such as Salesforce to quickly and securely connect to important documents, files and business applications stored and managed on-premises in network folders, SharePoint, legacy ECM or other repositories.

Customer-related documents, such as proposals, presentations, contracts, purchase orders, and emails, are a key part of customer relationship management, but often reside in on-premises data stores making them inaccessible for cloud solutions like Salesforce without costly data migrations or unwanted content duplication. With M-Files, organizations can now tap directly into these formerly isolated information silos and utilize them from the cloud.

Salesforce users can now see documents and other files that are stored in SharePoint directly in the familiar account and opportunity views in Salesforce. They can browse, edit and add new documents to the SharePoint library as if they would in SharePoint directly, which drives user efficiency and productivity.

In addition, Salesforce users can use search to look for data from within their SharePoint sites. M-Files support for Salesforce also enables users to easily tag or attach documents to Salesforce objects such as accounts, leads, contacts, and opportunities.

No-code platform for machine learning

US startup Obviously AI has launched a Web platform that promises to put the power of machine learning and analytics in the hands of non-technical business users, by providing hosted data analysis and natural language queries.

Data at organizations can be incredibly siloed, difficult to access, and overwhelming for thousands of business users across the globe. From finding a list of items in a haystack of data, to running complex predictive analytics, business users often have to wait for weeks for data engineers to get a single question answered

Obviously AI's no-code tool is extremely easy to use with results on any query returned in under a minute. Users simply upload their dataset from CSV, databases or CRMs and then get a Google-like search bar to ask a question in natural language.

For predictive questions, such as "Which customers are likely to cancel their subscriptions?" the platform will understand what the user is asking, find the right data, and build a machine learning algorithm on the fly. It also shows you exactly what factors drove your results, so you don't have to guess how it got them.

Similarly, the platform can answer analytical questions that look for existing patterns in data, such as "What is the average daily foot traffic for my retail stores?" Users do not need any familiarity with writing complex SQL queries or working with programming languages to code regressions, neural networks and other ML algorithms.

"We realized that business users truly cared about getting decision making insights about their customers, products and its usage.

"This often meant writing frustrating SQL queries and waiting on web engineers who would try to figure out machine learning algorithms," said Nirman Dave, Co-founder and CEO, Obviously AI.

"That's why we have been on a mission to make data science effortless just by asking questions. It's amazing what marketers, salespeople and other non-technical business users can learn when they use our platform."

To make predictions, Obviously AI uses state-of-the-art natural language processing to break apart a question, interpret it and find the right data.

Then it runs hundreds of machine learning algorithms in parallel and evaluates each one for accuracy to find the right algorithm for your dataset. Finally, it identifies top attributes that impact the outcome you are trying to predict and delivers highly accurate reports in under a minute. All the user needs to get started is a CSV file and a question they want to ask. The platform is available in Free, Pro and Pro Plus versions.

https://www.obviously.ai/

Social & collaboration security with CM 9.4

SafeGuard Cyber has integrated its security and compliance solutions for social, mobile, and collaboration platforms with Micro Focus' Content Manager. The new connector is included with the release of Micro Focus Content Manager, version 9.4.1.

As enterprise and government organizations become increasingly dependent on social media and mobile channels for everyday productivity and customer or citizen engagement, this new connector will enable the seamless capture and archiving of posts from social media, collaboration channels, and mobile chat apps to Content Manager.

"We've seen consistently high demand across our customer base for a solution that captures social media and digital content into Content Manager for record-keeping and regulatory compliance requirements," said David Gould, Worldwide Senior Director of Secure Content Management Solutions at Micro Focus, "We're pleased to work with SafeGuard Cyber to extend the use of Content Manager and help our customers address business-critical digital needs."

In addition to archiving, SafeGuard Cyber secures these channels against cyber threats and compliance violations. The platform provides realtime protection for social media channels such as Facebook, Instagram, Twitter, LinkedIn; collaboration channels such as Slack and Microsoft Teams; and mobile apps such as WhatsApp and WeChat. In all, SafeGuard Cyber supports risk protection for over 50 critical social media and digital channels, and the list is growing.

The speed and scale of social and digital messaging has proven challenging for many organizations. Jim Zuffoletti, CEO of SafeGuard Cyber, noted, "We are pleased to partner with Micro Focus to empower enterprise and government organizations to use today's social and digital channels securely and at scale."

https://www.safeguardcyber.com/contentmanager

Epson large-format document scanner

Epson Australia has expanded its line-up of commercial document scanners with the launch of the DS-32000 large-format document scanner. Engineered for the desktop in busy and high-volume enterprise and service bureau office environments, the DS-32000 includes a host of productivity features to help increase efficiency and streamline workflow.

The DS-32000 offers speeds up to 90 ppm1 with a peak daily duty cycle of 40,000 sheets, with a peak daily duty cycle of 30,000 sheets. With versatile paper support, the document scanner accommodates sheets up to 12" x 17", folded pages, plastic cards, sealed envelopes, and passports. This new model features a compact, space-saving footprint, and has a flexible design, providing both vertical and horizontal feed options, as well as easy rotation for convenient storage.

Suitable for a wide range of industries, the DS-32000 is equipped with productivity tools including a 120-sheet Auto Document Feeder, dual-sided scanning, a program-mable 2.7" touchscreen, and paper-protection function.

Using advanced paper feed technology which includes Slow Speed Mode for delicate sheets, Double-Feed Detection and Paper Protection to prevent misfeeds or damage and Dynamic Skew Correction to automatically detect and correct skews, the DS-32000 helps to take the hassle out of digitising piles of documents.

The DS-32000 is equipped with advanced TWAIN and ISIS drivers for seamless compatibility with document management systems. With the included OCR and powerful Document Capture software, users can easily create searchable PDFs and scan, store and share important documents to online storage accounts. Featuring colour contact image sensor optics for full wavelength reproduction, including highlighted text, the DS-32000 provides scans with faithful colour reproduction.

The Epson DS-32000 (RRP $A5,499) will be available in Australia from May 2020. The scanner includes a one-year limited warranty with warranty options available.

www.epson.com.au

3 Surprising Ways Archiving Data Can Save Serious Money

By Anna Mowry

Data growth is exploding, with the amount of global data expected to grow to 175 zetta-bytes by 2025, according to an IBM report. The rate of the increase is growing as well. An IDC report found that 90 percent of data in the world in 2017 had been generated in the previous two years.

With such significant growth, the cost of managing and storing data in primary storage adds up fast for enterprises. According to customer research by Igneous, storing a single terabyte of data in primary storage costs an organization anywhere from $US322 to $US2,270 per year, depending on an organization's primary performance and backup strategy.

Archiving data can result in serious savings, especially for organizations with a significant amount of unstructured data, which is typically text-heavy data not organized in any predefined way. Every unused terabyte of data that's archived could save between $US195 and $US2,028 per terabyte per year, representing 63% to 94% in savings compared to the total cost of storing data on a primary storage tier and backing it up.

You're probably familiar with some of the reasons why archiving data can save money, most notably lower primary hardware and software costs. But there are other reasons why archiving data is a smart choice.

1. Reducing Backup Costs

Nearly all organizations today protect their primary storage with a backup solution. When data is removed from primary storage with an archive solution, there is less data on the primary tier to backup, meaning less backup hardware, software, energy, and datacenter costs as well.

Until recently, backup solutions for enterprises typically fall into two strategies: tape or disk-to-disk (D2D) replication. Both of these solutions come with significant price tags to backup a single terabyte of primary data.

The common misconception is that tape backup is cheap. While an actual tape might be cheap, backing up primary data with tape also requires tape libraries, servers, software, data center space, power, cooling, and management overhead. These costs add up very quickly. Our research shows that to backup a single terabyte of primary with tape could cost $US138–$1,731 per year, depending on how frequently you are completing a full backup.

The other common backup solution – replication – requires backup workflows that replicate data from the primary NAS system to a secondary storage platform from the same vendor. In most cases, this means that the secondary storage system is architecturally similar to the primary NAS device, requiring hardware, software, data center space, power, cooling, and management. Our research shows that the total cost of replication is $US147–$1,512 per terabyte of primary data per year.

This means that for every terabyte of data you archive, not only are you saving hundreds of dollars by reducing consumption of primary storage, you are also saving hundreds or thousands of dollars by reducing backup costs!

2. The Magic of Data Compression

Another major benefit of archiving your data, either on-premises or in the cloud, is data compression.

Primary data is stored in native format so that end users and applications don't have to do any extra work to use it. However, since there isn't the same expectation for cold data, archived data can be compressed.

When optimizing for cost rather than performance, datasets can be crunched down to the minimum possible capacity footprint to fully maximize savings. Compression ratios vary from 1:1 for incompressible data, up to 2.5:1 or higher for more compressible workflows.

What's that mean in terms of cost savings? If your data has a compression ratio of 2:1, this reduces the consumption of archive storage by 50% because a terabyte of cold data stored on primary will require just 500 gigabytes in archive storage, resulting in significant additional annual savings for every primary terabyte archived.

3. Avoided Building Costs

By archiving data from primary storage to the cloud, companies reduce building costs, but these costs often, incorrectly, appear to be free. Common sense suggests that the organization already owns its building, and therefore incurs no cost.

However, this kind of thinking fails to account for the expansion costs once all the data centre space is used. Once all rack units are occupied, organizations must either build a new data centre, or rent space in someone else's data centre. Typical market rates for a rack unit in a data centre are between $US240 –$300 per rack unit per year, while building or buying a new data centre will likely cost millions of dollars. Additionally, hardware stored in buildings will require energy to power the hardware and to provide cooling for the data centre.

These recurring costs add up over time, and are frequently overlooked and underestimated when evaluating storage options. By archiving data to the cloud, organizations can offload these costs to the cloud providers, offering additional savings over on-premises storage solutions.

The Power of Archiving Data

With data growth rapidly increasing and the high cost of primary storage, it's crucial for organizations to adopt a sensible, effective archiving data strategy. By understanding the true, significant cost of data storage, IT administrators are in a better position to persuade data owners to archive cold and unneeded data, especially when those data owners realize that archived data can be accessible data. Whether they archive on-premises or in the cloud, organizations can mitigate rising costs and maintain fast access to crucial data by adopting a modern archiving solution which provides end users with direct access to archived data.

Anna Mowry is the vice president of finance and operations at Igneous.