M-Files®

THE STATE OF INFORMATION MANAGEMENT IN THE

MANUFACTURING INDUSTRY

TABLE OF CONTENTS

INTRODUCTION

Manufacturing employees manage a lot of moving parts on a daily — if not hourly — basis: from crews on the factory floor and quality management standards to equipment, materials and continuously changing conditions. Not to mention, they need to make sure products are manufactured according to strict specifications. Their profitability depends on their ability to execute — both in terms of cost and schedule. Organization is vital.

To keep things organized, most manufacturers use technology in some capacity to simplify day-to-day workflows for quality management, scheduling, accounting, estimating and more. Yet, information management remains a challenge for many manufacturers. According to IBM, workers in the manufacturing industry spend 20-40% of their time gathering information before they can even begin completing daily tasks. In regards to specific tasks like quality control (QC), nearly 40% of manufacturing industry QC employees said they had between one and four instances where a lack of document control necessitated a quality event, said one MasterControl survey.

To state it plainly, documents are possibly the least exciting part of the manufacturing business, but they're also one of the most vital. While many manufacturing professionals detest tracking documentation, it must be done

correctly, or it can lead to costly mistakes in the quality process, the supply chain and on the factory floor. But how much of this lies in hating paperwork, and how much of it lies in hating how paperwork is usually done?

The way manufacturing organizations manage company information sits at the crossroads of just about all business processes. Day after day and week after week, employees are wasting a significant amount of time dealing with the myriad of challenges related to working with company documents — across the entire document lifecycle. That wasted time is a silent killer to productivity, which can cost organizations a tremendous amount of money in opportunity costs. In a recent study, IDC revealed that the unproductive time workers spend as a result of information management inefficiencies amounts to a loss of 21% of the organization's total productivity, which costs the organization an astounding amount — nearly $20,000 per worker per year.[1]

The research project in the proceeding pages was commissioned by M-Files to better understand how manufacturing companies across the globe are managing their growing store of company information. With resounding clarity, the consensus is that document management remains a challenge.

Poor document management practices steal productivity from companies and cost them money and time.

DOCUMENT MANAGEMENT

Information is king when it comes to doing business. More and more, organizations seek to become more sophisticated in the way they manage company information. Poor document management practices steal productivity from companies and cost them money and time.

The most basic functions of document management platforms include: the ability to easily find documents; proper version control; storage control (preferably in a single user-interface); and the ability to review, sign, and approve documents. But how many manufacturing companies are faced with challenges around these most basic tenets of functional document management?

Finding Documents

Over the last two years alone, 90% of all the data in the world was generated.[2] With this growing amount of information to manage, the question then becomes: How easy is it for manufacturing workers to find the most pertinent version of the document they need?

When it comes to searching the repositories/ systems for documents and information while working in the office, what is your general experience?

41% say it's challenging or always challenging to find the right information.

Disturbingly, nearly half of workers report that searching their repositories and systems and finding the right information is burdensome and time-consuming.

This seemingly small problem can have a huge impact, considering how it's amplified throughout a large workforce that is often scattered across the warehouse floor or on the production line. Much of a manufacturing manager's life is spent working with various documents. Thus, it can be reasonably concluded that the pervasive challenges from that 41% of respondents in finding documents must be having an impact.

41% of workers find it sometimes or almost always challenging to find the information they're looking for.

Document Version "Hide and Seek"

The previous section elucidates that simply finding documents within an enterprise information ecosystem can be challenging. The survey looked at this "hide and seek" from another angle: What about finding the right version of a document among the tangled web of email strings and disconnected repositories?

It's all too common for manufacturing employees to spend unneeded time poring over emails and through file folders trying to find the latest, most relevant version of the document they need only to find that a colleague has amended a previous version. In fact, a Perforce survey of over 1,000 employees found that 83% of workers lose time to versioning issues every day.[3] Just how prevalent is this issue?

Nearly two-thirds of respondents (64%) stated that it's either always, mostly or sometimes difficult to find the right version of a document. Only 2% of respondents report that they never find it difficult to reliably find the most recent version of a document or file. Alarmingly, of those who have found it difficult, three out of four (75%) say that they've had to recreate a document which already existed because they were unable to find it on their corporate network.

Given that over eight in ten respondents (84%) agree that their job would be easier if they could quickly find and access the most current version of a document without having to worry about which system or repository it resides in, having to recreate documents is obviously a familiar frustration and worse than being an annoyance, in the aggregate, it slows down productivity and costs manufacturing companies millions.

"ON AVERAGE, HOW OFTEN DO YOU FIND IT DIFFICULT TO RELIABLY FIND THE MOST RECENT VERSION OF A DOCUMENT OR FILE?"

Some of the time	**38%**
Rarely	**34%**
Most of the time	**20%**
All of the time	**6%**
Never	**2%**
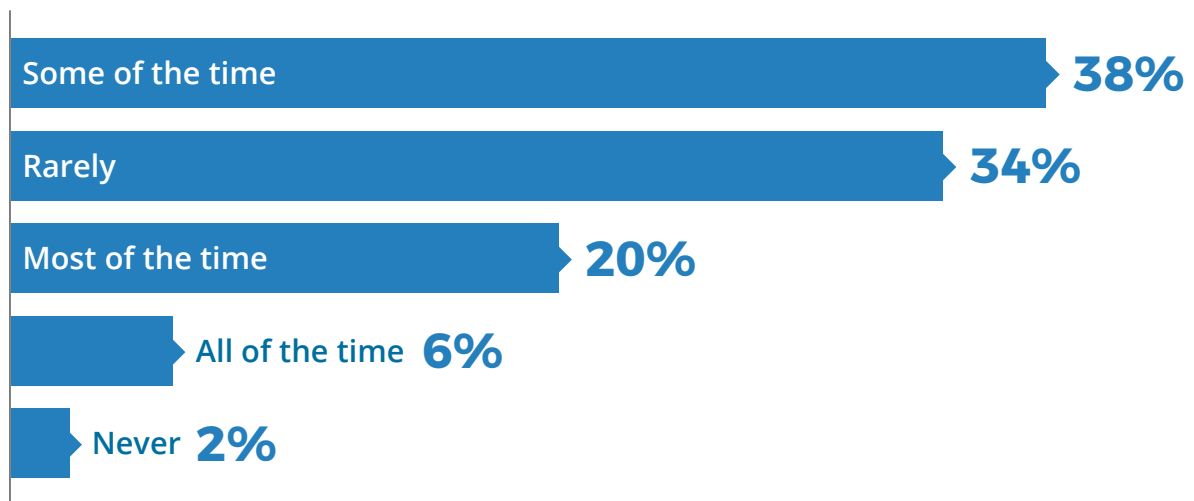
75% of workers have had to recreate a document which already existed because they were unable to find it on their corporate network.

Information Storage

The increasing store of company information continues to be scattered across multiple systems and repositories, a topic covered in-depth later. This is especially true for manufacturing companies who use a variety applications to manage various business functions. But where exactly do manufacturers tend to store their company documents? Which systems and repositories dominate the enterprise landscape?

Respondents were asked:

"TO THE BEST OF YOUR KNOWLEDGE, WHICH OF THE FOLLOWING SYSTEMS AND REPOSITORIES DOES YOUR ORGANIZATION USE TO STORE AND MANAGE DOCUMENTS AND OTHER INFORMATION?"

71%
Store and manage documents out of their email inbox

50%
save information locally to their desktop or laptop

Only
16%
Use a document management system

4 repositories
On average, respondents indicated that their organization uses 4 repositories to store and manage documents and other information.

The most likely location used by respondents' organizations is email, cited by 71% of respondents, followed by shared network drives and folders (62%), and/or information saved locally to desktop or laptop (50%). Needless to say, using email as the de facto, makeshift storehouse for information presents tremendous inefficiencies in searching for and finding the right document at the right time, as email systems tend to be inherently primitive in their contextualization of attachments and documents.

Only 16% report the use of enterprise document management systems within their organization. On average, respondents identified four systems and/or repositories that their organization uses to store and manage documents and other information.

Email — arguably the least-equipped system to manage large volumes of company information — is the most prevalent repository for company documents.

Challenges of Document Management

This is an era where inefficiency is no longer an option. Long gone are the days of "taking it slow" in the constantly-connected, fast-paced world that will soon be dominated by digital natives. According to Deloitte, 33% of the current workforce is made up of digital natives[4] — the young generation that doesn't know life before the internet. By 2030, millennials will comprise a whopping 75% of the workforce.[5] Manufacturing companies are not exempt from the pressure of keeping up with the demands of this generation, a generation that could use iPads before they could write. They are indelibly entrenched in technology and have become accustomed to having instant access to information at their fingertips as consumers. They have the same expectations in their professional lives. Manufacturing companies that want to stay ahead of the curve will find more efficient ways of managing information.
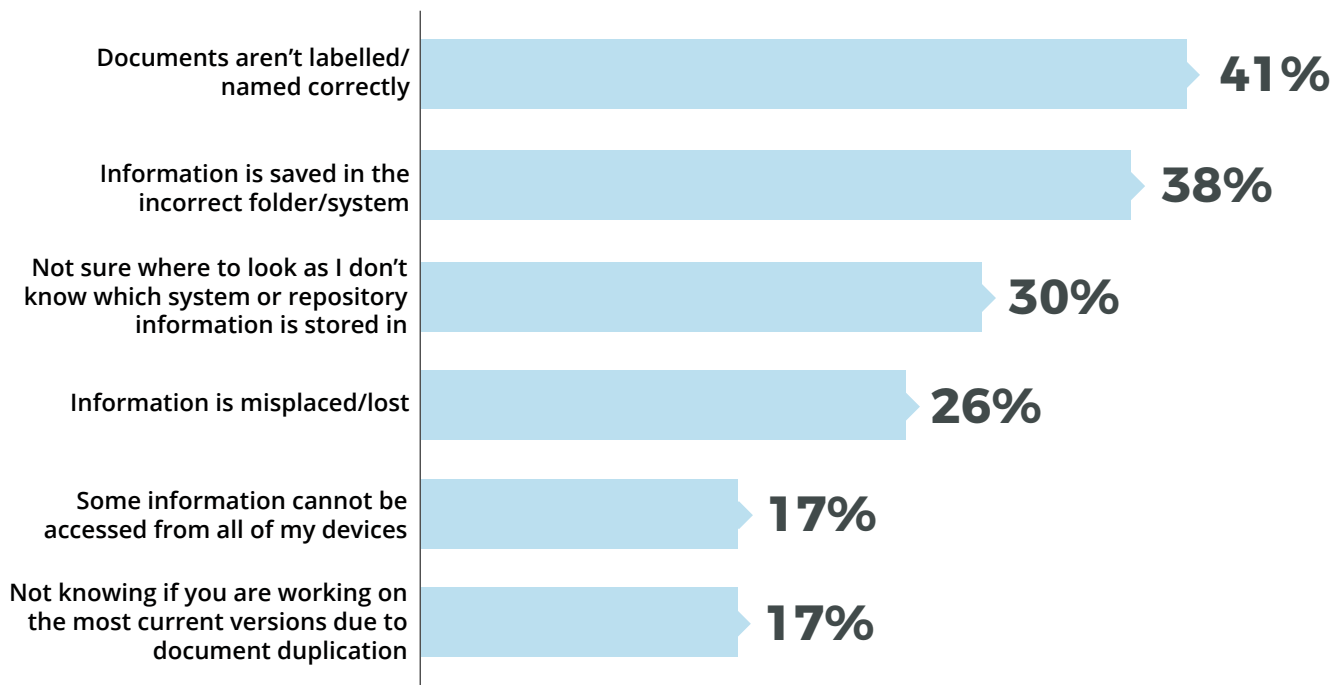
While the entry of digital natives into the workforce is one reason why companies need to take a hard look at digital transformation, there are other strong drivers towards a more efficient workforce — not the least of which are productivity increases and a desire for workers to spend less time searching for information and more time focusing on strategic tasks. If efficiency in finding company information is the goal, which challenges surface as the most common culprits thwarting efficiency?

The most likely challenges faced include documents not being labelled or named correctly (41%) and information saved in the incorrect folder or system (38%).

While these are the most common challenges, they are by no means the only ones, and the array of reported difficulties highlights that document management is still a big challenge for manufacturing organizations and is a likely thief of productivity, time, and money.

"WHAT CHALLENGES DO YOU EXPERIENCE WHEN SEARCHING FOR DOCUMENTS AND INFORMATION YOU NEED TO DO YOUR JOB?"

Challenge	Percentage
Documents aren't labelled/named correctly	41%
Information is saved in the incorrect folder/system	38%
Not sure where to look as I don't know which system or repository information is stored in	30%
Information is misplaced/lost	26%
Some information cannot be accessed from all of my devices	17%
Not knowing if you are working on the most current versions due to document duplication	17%

83% respondents indicate that they experience challenges when it comes to searching for information they need to do their job.

Reviewing, Approving and Signing Documents

From invoices to service agreements to internal documents and everything in between, document workflows are irrevocably linked to the ability to review, approve and sign documents. How often do employees find themselves having to print a document, sign it themselves or get it signed? Pretty often, it seems and thus should become an integral component of document management in the context of digital transformation.
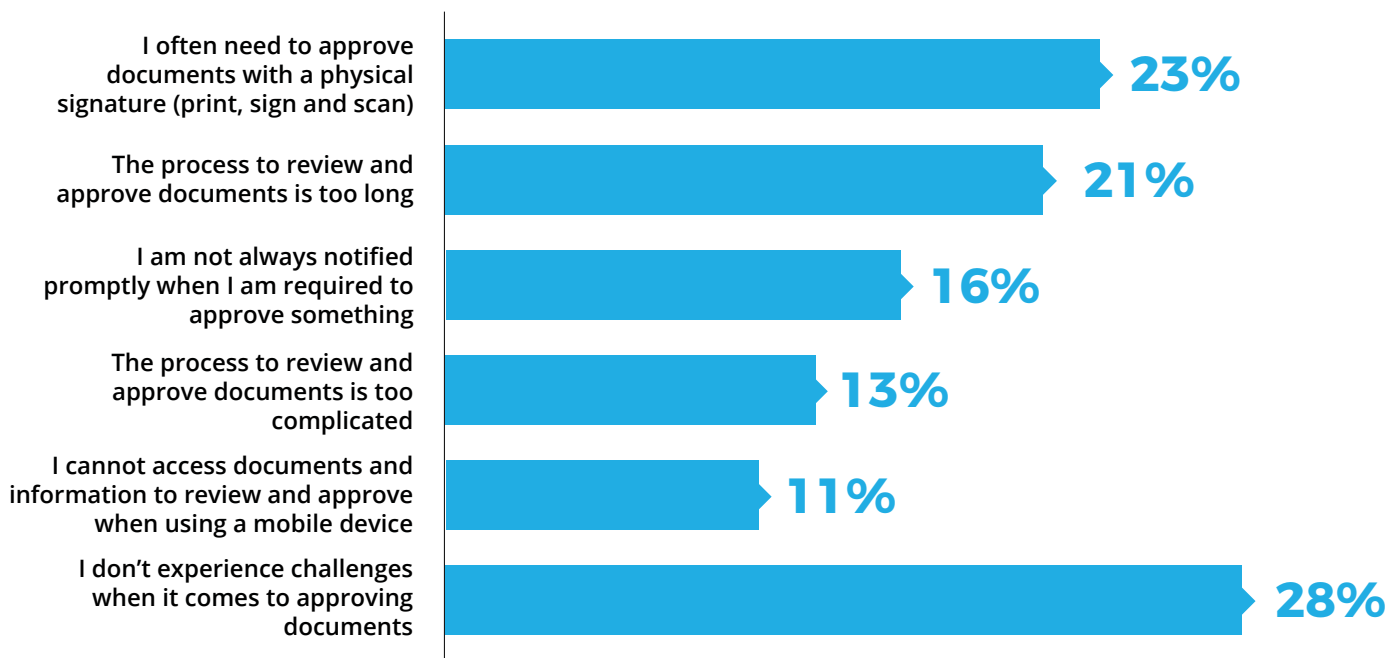
Seven in ten respondents (72%) indicate that they experience challenges when it comes to reviewing and approving documents and information.

While the digital workplace of the future is one that is less reliant on paper documents, the need for physical signatures leads the pack in terms of the most cited challenge experienced by workers, coming in at 23%. A close second is that the process to review and approve documents takes too long (21%).

With only 28% of respondents stating that they don't tout any major issues in document approval processes, organizations are clearly experiencing a range of challenges when it comes to reviewing and approving documents including areas such as efficiencies, notifications, and access. Realistically these are challenges that should not be too difficult to overcome but can all-too-easily have negative financial and productivity implications.

"WHAT CHALLENGES DO YOU EXPERIENCE WHEN IT COMES TO REVIEWING AND APPROVING DOCUMENTS AND INFORMATION?"

Challenge	Percentage
I often need to approve documents with a physical signature (print, sign and scan)	23%
The process to review and approve documents is too long	21%
I am not always notified promptly when I am required to approve something	16%
The process to review and approve documents is too complicated	13%
I cannot access documents and information to review and approve when using a mobile device	11%
I don't experience challenges when it comes to approving documents	28%

72% Seven in ten respondents indicate that they experience challenges in reviewing, approving and signing documents.

# Ability to Approve Documents on a Mobile Device

Research shows that over 40% of the global workforce will be mobile by 2020, and in advanced economies like the EU and the US, that number will soar to 75%.[5] Manufacturing companies are great candidates for mobile device document management, given the vast amount of time workers spend away from the office, on the factory floor or in warehouses.

With that paradigm shift comes the necessity to enable mobile workers to complete critical tasks — like reviewing and approving documents.

Only 23% of those respondents who need access to corporate documents using a mobile device report being able to sign documents using such a device.

The survey provided a follow-up question to the challenges experienced when it comes to reviewing and approving documents. When asked to identify the action workers were missing that would be the most likely to benefit them, the ability to sign documents from a mobile device was cited at 39%.

"ARE YOU ABLE TO SIGN CORPORATE DOCUMENTS ON A MOBILE DEVICE, WHEN NEEDED?"

Yes

23%

77%

No
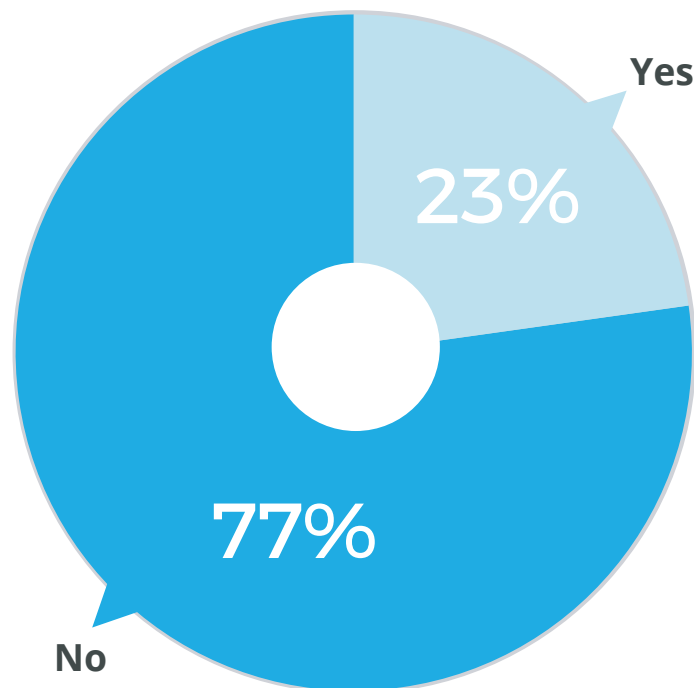
23% The reported percentage that can sign documents from mobile
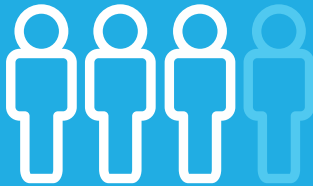
DOCUMENT MANAGEMENT RECAP:
BY THE NUMBERS

41% of workers indicate that at least some of time they find it challenging and time-consuming to find the information that they are looking for.

Only **2%** of employees report that they never find it difficult to reliably find the most recent version of a document or file.

3 in 4 workers say that they've had to recreate a document which already existed because they were unable to find it on their corporate network.

The most likely information repository used by organizations is **EMAIL (70%)**, followed by **SHARED NETWORK DRIVES AND FOLDERS (62%)**, and/or information **SAVED LOCALLY TO DESKTOP OR LAPTOP (50%)**.

When searching for documents, the most likely challenges faced are (1) documents not being labelled or named correctly (41%) and (2) information saved in the incorrect folder or system (38%).

23% of workers cite the need for a physical signature as the most common challenge in approving documents.

77% of employees are unable to approve corporate documents on a mobile device.

Only **16%** report the use of enterprise document management systems in their organization.

...many technologists have tried to tackle the issue with some success yet **challenges still remain.**

DOCUMENT MANAGEMENT ON THE MOVE

Information at every manufacturing company is growing — the quantity of documents, version control and various data stores all present unique problems and no two tactics for document management are the same. Now attempt to take those challenges away from the comfy confines of the office with some version of document management on mobile devices and the issues compound.

It sounds so straightforward: use your mobile device to access, store and manage documents from the cloud and work with them much like you would on a desktop. Most believe this should be easy for all workers, but many technologists have tried to tackle the issue with some success yet challenges still remain.

Accessing Documents from a Mobile Device

The most elementary of all document management functions is the ability to access documents — to retrieve them from wherever they may be stored. Increasingly, the ability to access information away from the office on a mobile device is becoming more and more important as the mobile workforce continues to grow.

The modern manufacturing employee demands efficiency of information access to work proficiently when away from the office. Manufacturing companies can realize massive efficiency gains by enabling staff to work with critical information from anywhere, anytime, on any device. How simple is it for workers to search and retrieve documents when away from the physical office location?

The vast majority (73%) of respondents report that they need access to corporate documents and information on their mobile device with only 39% of these respondents reporting that it is quick and easy to find the information that they are looking for on a mobile device.

Many business workers utilize more than one device for work and personal use. They need a simple and secure way to access files from each of those devices without having to save a local copy on each one. And it's not just access. People need to be able to work normally — as they would if they were in the office. Sharing, editing, approving and signing documents are all critical capabilities when working remotely. Providing access to information from any device, anywhere unlocks tremendous productivity. But to what extent can remote manufacturing workers use their mobile devices for document management?
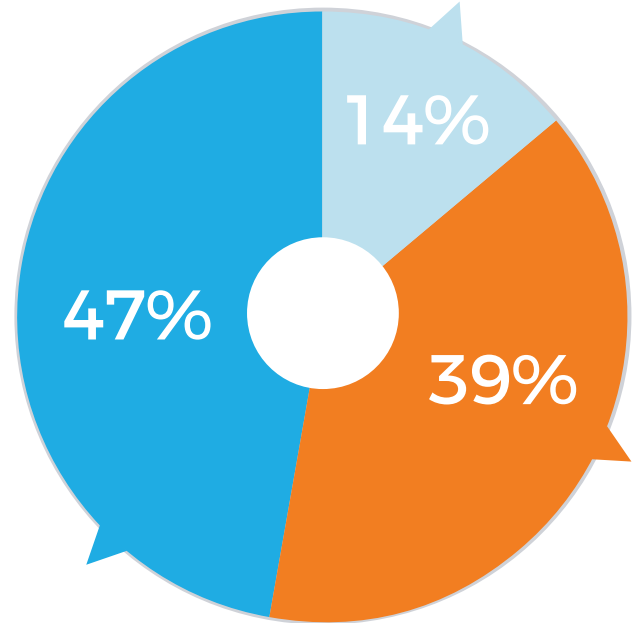
We asked survey participants:

Using the systems/tools provided by your company, which of the following are you currently able to do using a mobile device?

"WHEN IT COMES TO SEARCHING FOR DOCUMENTS USING A MOBILE DEVICE, WHAT IS YOUR GENERAL EXPERIENCE?"

- ■ It is quick and easy to find the information I am looking for
- ■ It can sometimes become challenging and time consuming when searching for information
- ■ It is almost always challenging and time consuming when searching for information

Of those respondents who need to access corporate documents and information on a mobile device, 49% cannot access company documents and files and 43% don't have the ability to share or collaborate on documents.

Given the high percentage of respondents (73%) reporting that they need to access corporate documents and information on a mobile device, addressing this functionality gap is key to the success of mobile document management

51% **Only 51% of manufacturing employees can edit documents on a mobile device.**

Use of Personal Devices and File-Sharing Apps

As many IT departments struggle to keep up with yearly technology changes, company employees increasingly want to use their own devices to access and share corporate data. It's part of a growing trend dubbed Bring Your Own Device (BYOD). This trend is often paired with file-sharing apps — like Dropbox, Box or Google Drive — to enable workers to pass files and documents between one another.

But the advent of BYOD and file-sharing apps has brought with it a new set of concerns — not the least of which are lack of monitoring and security and loss of full data control.

The survey asked respondents: **Do you use your own personal device and/or file-sharing apps to access and share company information?**

Nearly half (49%) of respondents report that they use personal file-sharing apps and/or their personal device to access and share company information.

It all alludes to mounting concern with shadow IT, where information technology is managed outside of (and without the knowledge of) the company's IT department. An Avanade survey reports that "one-third of tech purchases in a company are made by people who don't report to the CIO."[6] Employees bringing in consumer grade products opens up a host of problems for a company. In fact, 96% of Americans surveyed see employee negligence, such as user low-security products or infected removable storage media, as a contributor to data breaches.[7]

Manufacturing organizations should be keeping a keen eye on employee use of personal devices and file-sharing programs and regulating it where necessary to limit any unnecessary security concerns and breaches. Taking it one step further, many employees are using their own mobile devices and turning to these apps because their company doesn't offer a suitable alternative. With robust document management systems that provide mobile information management capabilities, organizations could potentially mitigate these risks entirely.

COMPANY-SANCTIONED USE OF PERSONAL DEVICES AND FILE-SHARING APPS

In the context of shadow IT, the use of personal devices and file-sharing apps to access and share company information is a practice that is, in recent years, been scrutinized by organizations. Companies are realizing that BYOD and file-sharing open the organization to IT-centric challenges like a lack of change management and data security.

Of respondents who use their own personal devices and/or personal file sharing apps to access and share company information, large proportions report that employees are officially permitted to do so (personal devices – 83%; personal file share apps – 76%). However, the use of personal devices and file-sharing apps is discouraged in 58% and 45% of respondents' organizations respectively.

5% of respondents admit to not knowing if they are officially permitted to use their personal devices to access and share company information and 5% admit the same for personal file sharing apps. Given the strict data protection rules which are currently being enforced around the world, organizations could be exposing themselves to unnecessary risk and a host of document management issues.

61% report that they use personal file-sharing apps and/or their personal device to access and share company information

MOBILE DOCUMENT MANAGEMENT RECAP:
BY THE NUMBERS

7 in 10
say they need to access corporate documents on their mobile device.

61%
say it's challenging to find information they need from a mobile device.

49%
can't access documents on a mobile device.

43%
can't easily share or collaborate on documents from their mobile device.
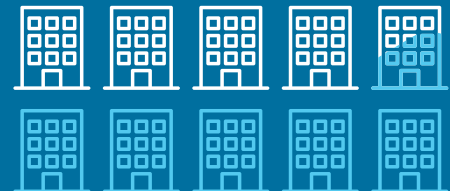
Nearly **half**
use personal file-sharing apps and/or personal devices to access and share company information.

Over **half**
of companies (58%) discourage or prohibit the use of personal devices.

45%
of organizations discourage or prohibit the use of file-sharing apps.

DATA REPOSITORIES

Information stores are growing at an exponential pace. If dealing with large and growing amounts of information wasn't difficult enough, that information is often scattered across a variety of different systems and repositories — including shared network drives, email, traditional document management and enterprise content management (ECM) systems, file-sharing services, ERP and CRM just to name a few. Manufacturing companies also utilize a bevy of industry-specific solutions to manage projects and documents, as well.

Many older legacy systems are essentially on life support and being phased out, while others are new services with frequent updates. Confusing matters further, workers are dealing with several different interfaces, which slows user adoption and decreases efficiency and productivity. In short, today's business information environment is messy, complex and expensive, both in terms of the costs of the actual systems and the necessary IT resources to maintain them.

...workers are dealing with several different interfaces, which slows user adoption and **decreases efficiency and productivity.**

Number of Systems and Locations of Information

On average, respondents must search 3 different repositories to find the most current version of a document or file with the majority (75%) of these respondents reporting that navigating through different systems and locations to find and verify the most current versions of documents or files has a negative impact on their productivity.

Furthermore, 84% agree that their job would be easier if they could quickly find and access the most current version of a document without having to worry about which system or repository it resides in.

By all accounts, workers are almost unanimous that benefits would be realized if all documents could be searched for in one place, and it makes perfect sense. With an intelligent information management platform, information could be contextualized and presented in a single interface rather than strewn across the information ecosystem. Documents could then be accessed in the same place, regardless of where they are physically stored.

3 Average number of different systems or locations that respondents have to search to find the most current version of a document or file.

82% Say navigating through different systems and locations to verify the most current versions of documents negatively affects productivity.

91% Agree that their job would be easier if they could quickly find and access the most current version of a document without having to worry about which system or reposititory it resides in.

Number of Systems and Locations of Information

Just over eight in ten (83%) respondents would find it beneficial to be able to reliably search for documents in one place, regardless of where they happen to be stored. This is also reflected across respondents from all countries, with the highest proportion (93%) being respondents from the US.

It is perhaps not surprising then, when looking at the reported use of enterprise document management systems, that only 16% of respondents from the US report that their organization uses an enterprise document management system. There is an obvious need to simplify document search capabilities for employees, which will have benefits not only for the company but for its employees too in their day-to-day functions.

83% Would benefit if they could reliably search for their documents from one place, regardless of where they happen to be stored.

16% percentage of companies who reported use of an enterprise document management system.

Document Access in Line of Business Applications

The typical manufacturing company, large or small, depends on several different enterprise applications to ensure that employees can complete critical, daily tasks. Apps like those for enterprise resource planning, customer relationship management, HR solutions, and accounting software have become commonplace in corporate settings. Doing things any other way is archaic, at this point. But SaaS sprawl leads to information sprawl. There are no two ways about it.

Microsoft Office Suite is the business application that respondents are most likely (63%) to be using in their day to day role, and 43% use ERP systems. On average, respondents identified three line of business applications that they use in their day-to-day role.
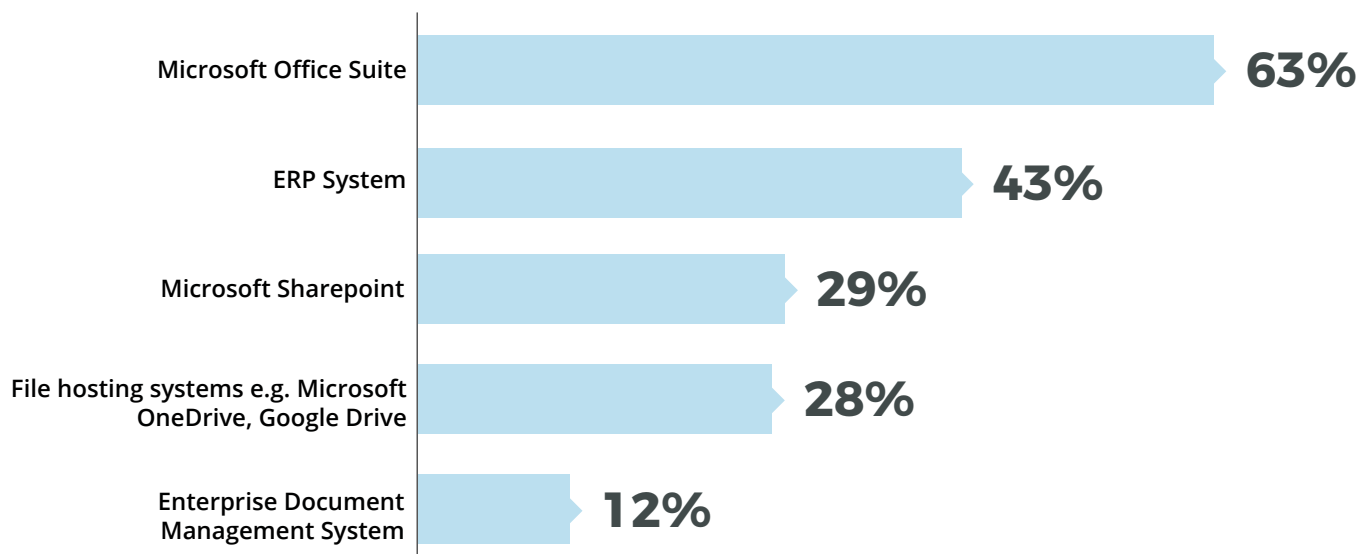
Aside from the obvious user-level inconvenience of having to navigate between several different systems and applications to manage information, the problem of multiple information repositories can be more far-reaching and drastic. Usually, separate data repositories are not effectively integrated with one another. This creates an information ecosystem governed by independent, disconnected silos.

It may, on the surface, make sense to have similar content exist in multiple systems — as a customer contract, for example, may reside in

the CRM with another copy saved in an ERP that Accounts Receivable uses to track payments. But, in the absence of a unified enterprise information system that connects disparate repositories, this duplication of information can become burdensome and unwieldy. Users are left to search multiple systems and then wonder if they have the latest version. In addition, from an IT standpoint the problem becomes the unnecessary use of information storage and an overall disparity in information systems.

Furthermore, organizations with multiple disconnected systems fail to get the best value out of their information due to the lack of context. These systems fail to share metadata characteristics with each other and thus further the divide between them. The solution to these problems often lies in an information management platform with a unified metadata layer that connects and contextualizes information across multiple repositories. As an example, with a sophisticated document management platform, a stored document can draw context from multiple data locations — customer information from the CRM, related documents from network folders, assigned employees from an HR system. It seems intuitive that anything organizations can do to make their employee's lives easier will surely benefit not only the employee, but the organization as a whole also.

"WHICH OF THE FOLLOWING LINE OF BUSINESS APPLICATIONS DO YOU USE IN YOUR DAY-TO-DAY ROLE?"

Application	Percentage
Microsoft Office Suite	63%
ERP System	43%
Microsoft Sharepoint	29%
File hosting systems e.g. Microsoft OneDrive, Google Drive	28%
Enterprise Document Management System	12%

DATA REPOSITORIES RECAP:
BY THE NUMBERS

Respondents report having to search **three** through 3 systems on average.

75%
of workers agree that navigating through different systems and locations to find and verify the most current versions of documents or files negatively affects their productivity.

83%
report that they would benefit if they could reliably search for their documents from one place, regardless of where they happen to be stored.

84%
of respondents agree that their job would be easier if they could quickly access the most current version of a document without having to worry about which system or repository it resides.

70%
of respondents report that it would be beneficial to see documents in context.

71%
say it would be beneficial to link documents back to the information stored in line of business applications.

The most likely line of business applications used are **Microsoft Office Suite** (63%), followed by **file hosting systems** (43%).

ARTIFICIAL INTELLIGENCE AND DOCUMENT CONTEXTUALIZATION

Whether you're aware of it or not, artificial intelligence (AI) has a ubiquitous place in our lives today – think personalized playlists on Spotify or the 'Recommended for You' lists on Netflix, both of which use AI to curate a selection tailored just for the user. Now its presence is being felt in the area of document management, with AI and cognitive computing set to revolutionize the ways in which we store, archive, process and extract information.

Smart document management systems are making healthy use of AI for a variety of functions — including automatic classification, processing and data extraction. Primarily, AI has opened the door for powerful contextualization of an organization's information. AI can 'read' a document and, based on past iterations of similar documents, suggest properties that might be included in the metadata for that document — enhancing the user's ability to find exactly what they're looking for in information searches. How powerful would it be to enter an invoice and have AI suggest which account it should be tagged to, which employee might be responsible for processing it or which expenditure category to place the invoice in? AI makes companies more efficient, consistent and increases auditability — primarily by reducing user error and misclassification, and by properly coordinating the best context for a document based on its contents.

AI makes companies more **efficient, consistent and increases auditability**...

Badly-Named Documents and Finding Company Information

The old way of categorizing documents involves naming them the best way you can and putting them into a folder that hopefully matches the context of that document. But that process is wrought with challenges, since employees probably work differently when naming and foldering documents.

One piece of content can have valid reasons for being stored in multiple folders or locations; in traditional folder structures, an invoice, for example, could be placed in a folder for sales documents, a folder for that client, an invoice folder, or several other sensible folders. But then how does everyone find that invoice, when they need to? Where do they look? Furthermore, when it comes to naming that file, how can the company ensure a consistent naming convention that will make sense to the next member of staff who comes along to find that document?

The newer way is based on metadata — and the resulting ability to find and manage information by what it is rather than where it is stored. Metadata is "data about data." Although it may seem pithy, this is a pretty accurate definition. The main goal is to enable users to quickly determine which document they need to view from their search results — based on the context of that document. While traditionally metadata has been entered manually, some document management systems are now making use of AI to intelligently suggest context cues that should be included in the metadata for a file. This ultimately reduces error-prone manual entry and provides for a consistent method for organizing documents to make them easily classifiable, and thus findable.

Over four in five (86%) respondents find it challenging to name or tag a document when saving it to ensure that it can be easily found by their colleagues and over nine in ten (93%) report that at some point they have been unable to find a document because it has been badly named or tagged when filed.
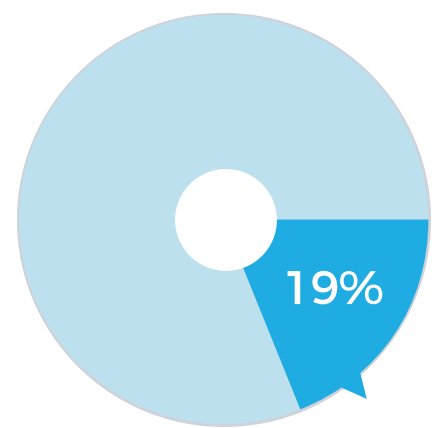
This is not a surprise given that only 19% of respondents report that their organization has completely clear guidelines in place as to how a document should be labelled when saving to a system, showing that organizations have work to do if they want employees following the same process.
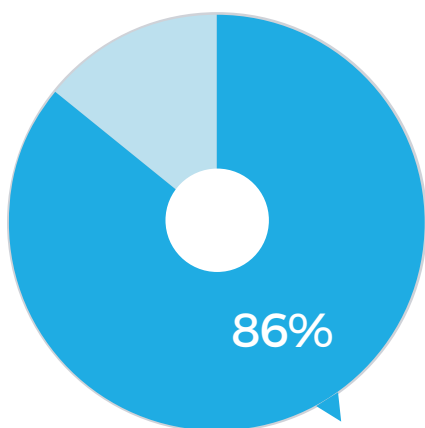
86%

FIND IT CHALLENGING TO NAME OR TAG A DOCUMENT WHEN SAVING IT TO ENSURE THAT IT CAN BE EASILY FOUND BY THEIR COLLEAGUES

93%

ARE UNABLE TO FIND A DOCUMENT BECAUSE IT HAS BEEN BADLY NAMED OR TAGGED WHEN FILED

19%
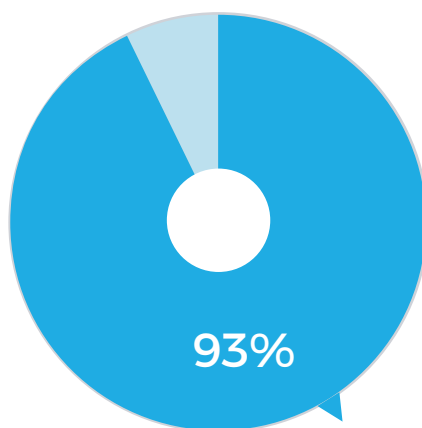
REPORT THEIR ORGANIZATION HAS COMPLETLY CLEAR GUIDELINES IN PLACE AS TO HOW A DOCUMENT SHOULD BE LABELLED WHEN SAVING TO A SYSTEM

The Benefit of AI-Enabled Contextualization

Respondents were also asked if it would be of at least some benefit to them and their colleagues if the system they used could automatically name or tag the document for them.

It is hardly a surprise that nearly nine in ten respondents report that it would be a benefit to have a system which could automatically name or tag a document. The benefits of AI-enabled contextualization in document management are self-evident and far-reaching:

Automatic document classification and processing: By virtue of suggesting metadata context for documents, the process becomes less error-prone and more automatic. In one use case instance, optical character recognition (OCR) has made document capture a breeze, but AI takes this a step further by being able to "read" the information on that document, classify it appropriately and automate workflows based on that classification – at a fraction of the speed a human could. While the AI-driven metadata engine is initially directed by a set of rules, its identification and processing capabilities continue to advance using machine learning. In other words, it can learn from frequent exposure to similar documents, as well as from the actions

taken by personnel on those documents.

Data extraction: By being able to precisely read information and understand context, an AI-powered document management system can take data extraction to the next level — a capability that is crucial as organizations are besieged with more and more data.

Document clustering: With AI, documents can be easily grouped by common themes, fields or topics. This can help organizations recognize how documents relate to one another within a broader context and help them find parallels and make inferences that might not have otherwise been possible.

Advanced security: Companies can enhance security and protect customer data with an AI-powered document management system. The technology can detect sensitive and personal identifying information and flag those documents for special handling or enter them into a specific workflow. Automatic classification and processing also mean that documents aren't assigned to an unsecured file location, waiting to be actioned.

89% of workers report that it would be a benefit to have a system that could automatically name or tag a document.

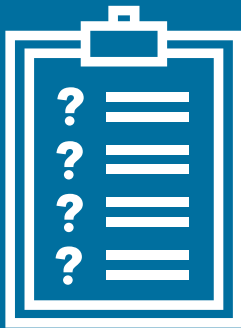# AI AND DOCUMENT CONTEXTUALIZATION RECAP:
BY THE NUMBERS
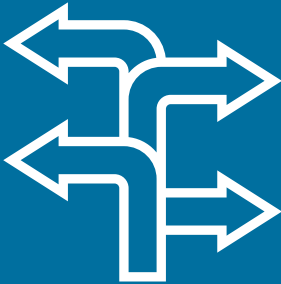
86%

of workers report that they find it challenging to name or tag a document when saving it to ensure that is can be easily found by their colleagues.

93%

report that they are unable to find a document because it has been badly named or tagged when filed.

19%

of respondents report that their organization has completely clear guidelines in place as to how a document should be labelled.

89%

of respondents report that that it would be of at least some benefit to them and their colleagues if the system they use could automatically name or tag the document for them.

CONCLUSION

Clearly the research supports the notion that manufacturing companies across the globe still have nagging issues when it comes to the most basic document management functions — issues that will worsen as time goes on and the store of information gets larger. Business face a multitude of pressures — some which can be mitigated by a simple information management strategy.

A manufacturing operation is successful when it can successfully get products out the door — where all units strictly adhere to quality standards and specifications. Manufacturing document management systems can help. Through a unified, consolidated document management system, manufacturers can reduce their chances of costly miscommunications and production mistakes. In so doing, they are also able to improve their overall outcomes.

Increased transparency and accuracy throughout the production lifecycle ensures that the company has a leaner and more efficient operation. Further, document management solutions can leverage advanced new technologies to produce more reliable and accurate data — data which can be distributed throughout the manufacturing process and can be used to optimize and improve upon the product.

Ultimately, document management systems pay for themselves in cost savings and improved client service. Even better, they automate many of the technical and administrative tasks that manufacturing companies don't want to have to do on their own.

Document Management: Integral to Digital Transformation (and the ability to compete)
Information systems are the foundation of modern IT. Thus, integral to any digital transformation initiative is the implementation of a flexible and intelligent information system. Yet, while digital technology is opening the door to completely new ways of doing business, some organizations flounder in their ambitions and instead stand pat without improving existing ways of operating. Some $2 trillion dollars will be spent annually worldwide on digital transformation technologies, according to analysts, while as many as 70% of enterprises polled admit that they don't have a coherent plan.[8]

Over the past few years, document management strategies have progressed significantly, driven by other trends in the IT market and the more widespread use of intelligent information management systems. Organizations that do not embrace digital transformation will be less likely to outclass competitors and reach the pinnacles of their markets. Modernized document management is central to the digital workplace and the adjustments necessary to compete.

METHODOLOGY

M-Files commissioned a survey of 1,500 office workers to understand several factors related to how their organizations manage company information and the challenges encountered when accessing and managing corporate information.

The survey was conducted by independent market research firm Vanson Bourne. Respondents' organizations varied in size, ranging from small-to-medium sized businesses (SMBs) to large enterprises, and came from a broad range of industries. In addition, the respondent group represented constituents from nine countries and a variety of business departments.

Specific lines of questioning were deployed around four primary areas of interest:

1. **General Document Management:** The overall end-user experience of managing company documents

2. **Document Management on the Move:** Accessing and managing company information from off-site locations with mobile devices
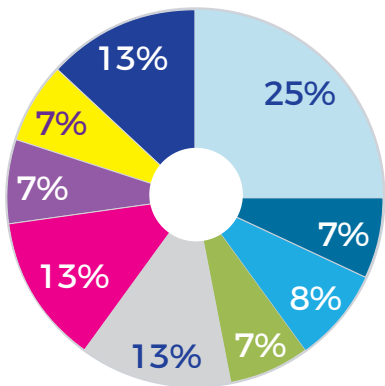
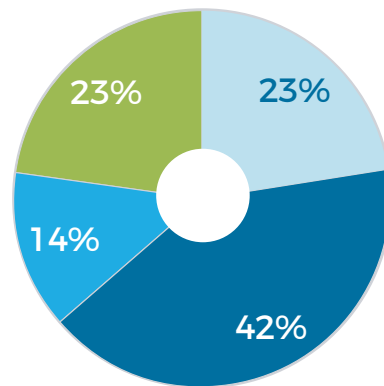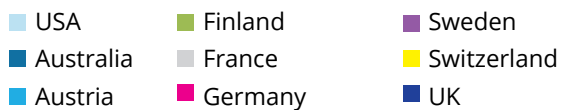3. **Data Repositories:** Managing company information contained in multiple systems and silos

4. **Artificial Intelligence (AI):** The perception and use of AI to contextualize company information
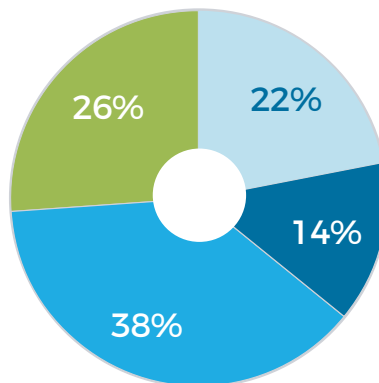
DEMOGRAPHICS: 1,500 TOTAL RESPONDENTS

RESPONDENT COUNTRY

- 25%
- 13%
- 7%
- 7%
- 13%
- 13%
- 7%
- 8%
- 7%

Legend:
- USA
- Australia
- Austria
- Finland
- France
- Germany
- Sweden
- Switzerland
- UK

WORK EXPERIENCE

- 23%
- 23%
- 14%
- 42%

Legend:
- 1-5 Years
- 5-10 Years
- 10-20 Years
- More than 20 Years

COMPANY EMPLOYEE COUNT

- 26%
- 22%
- 14%
- 38%

Legend:
- 101-250 Employees
- 251-500 Employees
- 501-1,000 Employees
- 1,000-3,000 Employees

SOURCES

[1] Webster, Melissa. *Bridging the Information Worker Productivity Gap: New Challenges and Opportunities for IT.* IDC, Sept. 2012.

[2] Marr, Bernard. *How Much Data Do We Create Every Day? The Mind-Blowing Stats Everyone Should Read.* Forbes, 9 July 2018.

[3] *Perforce Study Reveals That 83% of Knowledge Workers Lose Time to Document Versioning Issues Each Day.* Perforce, 26 Mar. 2013.

[4] *The Deloitte Millennial Survey 2018.* Deloitte, 2018.

[5] Luk, Gina. *Global Mobile Workforce Forecast Update 2016-2022.* Strategy Analytics, 2016.

[6] *Global Survey: What's Creating Tension between IT and Business Leaders?* Avanade, 2014.

[7] *State of the Industry: Information Security.* Shred-It, 2018.

[8] *Kimura, Akihiro et. al. Worldwide Semiannual Digital Transformation Spending Guide.* IDC, July 2018.