HOW TO FIND A NEEDLE IN A HAYSTACK

INTELLIGENT INFORMATION MANAGEMENT
It is said that data, in all its formats, is the new oil. Like oil, data also needs to be refined.

No business can survive without data. However, the problem with data is that unlike oil, there can be and is too much of it. While we are gradually running out of oil, we on the contrary keep on drowning in the abundance of data. And this data is scattered across different systems and repositories, and comes in numerous formats, both structured and unstructured. Businesses struggle with finding the relevant data to refine and manage.
The amount of data

SINCE THE oldest preserved “document”, a ceramic slab with text originating from approximately 5000 BCE, mankind has been creating data and with an increasing pace in recent decades. Today, the amount of all data is 2.7 Zettabytes, which is the equivalent of 200 billion HD movies. This would take 47 million years to watch.

What is more, the amount of information grows at an astounding speed.

90% of the data in the world today has been created in the last two years alone, at 2.5 quintillion bytes of data a day - that is the equivalent of 250,000 Libraries of Congress, or 150 million iPhones. For example, over 200 million emails are sent every minute.

EVERY TWO DAYS we create as much information as we did from the beginning of time until 2003. The total amount of digital data created worldwide will hit 163 zettabytes by 2025 - that is 163 billion terabytes.

BY 2020, THERE WILL BE 5,200 GIGABYTES OF DATA FOR EVERY PERSON ON EARTH

THE AMOUNT OF DATA BY 2025

163,000,000,000,000,000,000,000,000 bytes
The Dark data problem

IT IS estimated that only **0.5 percent** of all data created is analyzed for operational decision making.\(^{10}\)

**OUT OF** all organizational information in data repositories, **over half is considered dark data.** That is data that is unknown and uncategorized and therefore, quite useless for the organization. Gartner defines dark data as the information assets organizations collect, process and store during regular business activities, but generally fail to use for other purposes (for example, analytics, business relationships and direct monetizing).\(^{11}\)

**ONLY 15 PERCENT** of organizational data is business critical. The other 85 percent is either redundant, obsolete, or trivial – so called ROT data – or considered dark data.\(^{13}\)

**THAT ROT** and dark data comes with a price tag – an average midsized organization with one thousand terabytes of data would spend an extra $900,000 annually to store and try to manage that non-critical data. The data overload could cost organizations up to **$4.6 trillion** cumulatively by 2020.\(^{14}\)

The annual cost of non-critical data

$900,000
The reality in a business

AS FAST as the growth speed of all digital data is, the speed of growth for organizational data is even faster. **Organizational data doubles every 1.2 years.** And 80 to 90 percent of that data is unstructured — data that lies outside business systems such as the CRM, in various office documents, email, paper, design software, etc.

THE INFLUX of data is putting a strain on IT infrastructures. According to a global survey from Avanade, 55 percent of respondents reported a **slowdown of IT systems** and 47 percent cited data security problems.

CONTENT COMES in a huge variety of formats (structured databases, formal records, unstructured content, pictures, videos, graphics, presentations, office documents, text, email, social, etc.). Enterprises store huge amounts — in most cases 100 terabytes or more — of unstructured data on in-house storage systems. The unstructured data is hard to manage, unless you know what the content is. To make it worse, the amount of unstructured data in enterprises is growing significantly — often many times faster than structured databases are growing.

ORGANIZATIONS USE content management systems to manage unstructured data. However, they often fail to manage it all in one common system. The **average number of content management systems in use has grown by nearly 30 percent in the last five years.**

53 PERCENT of companies use three or more content management system.

YET, OVER half of organizations say that most of their unstructured business information lies outside content management systems in enterprise systems.

Organizations have legal obligations to manage all sensitive data properly — but how do you manage data when you don’t even know what information you have, where it is, or what it is.
The wasted opportunity

THE AMOUNT of organizational data makes it hard to find the relevant data when it is needed. Therefore, information cannot offer any benefits. Internal productivity decreases significantly when employees need to spend their time looking for and re-creating necessary information.

INFORMATION WORKERS spend more than two hours per day searching for documents with little to no success and up to two hours per day recreating documents as the correct version cannot be found or has been lost.

Eliminating the time wasters related to creating and managing documents would be equivalent to adding 98 new employees in a 1,000-person company.22

80 PERCENT OF DOCUMENTS THAT AN ORGANIZATION PRODUCES NEVER GETS USED AGAIN. 70 PERCENT OF DOCUMENTATION IS RE-CREATED AT SOME POINT.

80% 70%

UP TO 10 to 30 percent of documents stored are duplicates.24 Every byte stored has a price, and duplicate data takes up unnecessary server space. Time is also wasted on the management and upkeep of the unnecessary servers and data storage. To make the problem worse, duplicates are multiplied in back-ups, data transfers and other similar manners, increasing the risk of using the wrong version of a document. The result is that companies spend a fourth of their IT budget on data storage.25

10-30 percent of documents stored are duplicates.

MONEY WASTED is, however, not the only problem duplicate data causes. It can also damage company reputation and customer relationships.

ACCORDING TO a Cognizant study, trust is the new currency, and breaking trust can break a brand. Nearly 40 percent plan to switch to the competition or digital startup due to trust issues.26
THE OPPORTUNITY FOR IMPROVED PROFITABILITY AND COMPLIANCE

Today, as the result of inefficiencies in information management, knowledge workers spend 30 percent of their working time looking for information, rather than on something profitable.27

TYPICALLY, ONLY ONE IN FIVE SEARCHES is successful the first time. On average, it takes up to eight attempts to find the right information. And it can take up to 25 minutes to look just for one document.28

WITH THE amount of information, it is no wonder businesses struggle with managing it. Yet, information management is key to achieving both more profitability and compliance with laws and regulations.

THE ENTERPRISES that thrive during this data transformation will be those that can identify and take advantage of the critical subset of data that will drive a meaningful positive impact for enhancing user experience, solving complex problems, and creating new economies of scale.29

A 10 PERCENT increase in data accessibility translates into an additional 65.7 million dollars in net income for a typical Fortune 1000 company.30

+ $65.7 million net income

THE CHALLENGES related to collaboration, such as gathering and consolidating feedback, as well as version control, take up to seven hours of an information worker’s time.

Solving this problem efficiently would improve productivity to the extent of the work of 115 employees in a 1,000 employee company.31
Metadata is a key ingredient of efficient information management

**METADATA**, by its definition, tells more about other data. It gives common “keys” to finding information based on what it is, rather than where it is located.

**WHAT IT IS vs. WHERE IT IS**

- **DOCUMENT TYPE**
- **CUSTOMER**
- **DATE**
- **AUTHORIZATION**

**WITH METADATA**, information can be categorized in a common, efficient way, so that everyone has access to it.

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The metadata-based “what vs where” approach to document management is the basis for intelligent information management.

**METADATA**, **WHEN** used as it should, is generated every time data is handled in any system within an organization. It can bring clarity to the definitions and relationships between data. Metadata can tell you what type of document it is, which project or customer the document is about, who created or edited it, what is its status, when it needs to be updated or approved, and so on. Through metadata, unstructured data becomes structured and content can be found in context.
Intelligence as a key to success

**METADATA**, while already providing a lot of benefits for the organization, is still only one step on the path towards improved profitability.

**TO EFFICIENTLY MANAGE** all organizational data, you need a method of finding, identifying, managing and processing information regardless of its location. You need connectors to access data in other repositories and intelligent tools to find and manage the information you need.

**UNIFY INFORMATION ACROSS SYSTEMS, REPOSITORIES AND PLATFORMS**

**EASY AND ENGAGING**  **OPTIMIZED FOR YOUR DEVICE**  **MOBILE AND OFFLINE ENABLED**

**CORE ECM CAPABILITIES**  **SEARCH ACROSS REPOSITORIES**  **AUTOMATIC METADATA AND CLASSIFICATION**

**MULTI-REPOSITORY BACKEND**

**ARTIFICIAL INTELLIGENCE** tools can crawl into repositories and use defined parameters to look for information like personally identifiable information (PII). Artificial intelligence can also help you define relevant metadata for the objects, minimizing human errors or laziness by suggesting relevant metadata values. Once information is categorized, metadata can be used to create automatic processing rules and workflows.

**INTELLIGENT INFORMATION** management comes from a metadata-driven approach to document management combined with the ability to manage information across systems and repositories without the need for migration.

**USER ADOPTION** is typically a major obstacle on the way to improved efficiency when taking new systems into use. Therefore, providing tools that offer a wide variety of features to support the whole business, while still being easy to take into use and manage, is vital for success.

**ELEMENTS OF SUCCESSFUL INTELLIGENT INFORMATION MANAGEMENT**

**METADATA DRIVEN**  **SYSTEM AND REPOSITORY NEUTRAL**  **INTELLIGENT**  **EASY TO WORK WITH AND MANAGE**  **RICH FUNCTIONALITY TO SUPPORT THE WHOLE BUSINESS**
Improved compliance

IT IS not just efficiency that comes with the use of intelligent information management. Compliance with laws and regulations is another important side of it. Failing to comply can cost a lot of money.

GDPR regulates the handling of personally identifiable information of EU citizens. The failure to comply with GDPR can result in fines of up to four percent of a company’s global annual revenue, or up to €20 million, whichever is higher.32

Potential cost of GDPR breach: 4% of global annual revenue or €20 million

THE DIRECT LOSS of money is, however, only one aspect of the story. The potential reputation degradation can be more harmful, as consumers typically stop buying from organizations they don’t trust.

ACCORDING TO a Cognizant study on consumer trust, roughly 57 percent will stop doing business with a company that has broken their trust. Almost all people are concerned with privacy (91%), and also with theft (76%), misuse of personal data (75%), and even physical safety (72%).33

ON THE positive side of it, half of consumers would be willing to pay a premium for products or services from companies they trust to protect their personal information.34

INTELLIGENT INFORMATION management provides transparency to workflows and helps you adhere to compliance requirements more easily.
10 BENEFITS OF INTELLIGENT INFORMATION MANAGEMENT

1. Eliminate the need for content migration in siloed information environments
   You can work with information regardless of the file location

2. Find information based on the right context
   The same, correct information is found based on different search criteria and content is put in context

3. Do not duplicate data
   Everyone uses the single, correct version of a document

4. Manage business-critical data
   Illuminate business-critical data from the dark in various repositories

5. Apply metadata to categorize and enrich data
   Content can be tagged with almost any information that helps understand it in a business context: the document type, expiration date, customer name, etc.

6. Leverage metadata to manage workflows and access rights
   Metadata can be leveraged to alert users of expiring contracts or to set permission settings, for instance.

7. Increase productivity
   Let employees focus on their actual work rather than document filing and searching

8. Improve compliance and risk management
   Intelligent information management systems help you comply with laws, regulations, and industry or company standards

9. Improve user adoption
   One unified user interface on all devices and across all repositories and platforms

10. Boost collaboration
    Share and co-author content with internal and external stakeholders

With the help of intelligent information management, the system can refine documents and workflows, letting employees focus on adding value to customers and the core business. All of this leads to improved productivity and customer satisfaction.
If you are interested in intelligent information management and the possibilities it offers to you and your organization, please contact us.

For information about M-Files, please visit www.m-files.com
Sources

8. https://www.slideshare.net/BernardMarr/big-data-25-facts/2-Every_2_dayswe_create_as
20. M-Files experience
M-Files provides a next-generation intelligent information management platform that improves business performance by helping people find and use information more effectively. Unlike traditional enterprise content management (ECM) systems or content services platforms, M-Files unifies systems, data and content across the organization without disturbing existing systems and processes or requiring data migration. Using artificial intelligence (AI) technologies in its unique Intelligent Metadata Layer, M-Files breaks down silos by delivering an in-context experience for accessing and leveraging information that resides in any system and repository, including network folders, SharePoint, file sharing services, ECM systems, CRM, ERP and other business systems and other business systems and repositories. Thousands of organizations in more than 100 countries use M-Files for managing their business information and processes, including NBC Universal, OMV, Rovio, SAS Institute and thyssenkrupp.