



KIV/SI

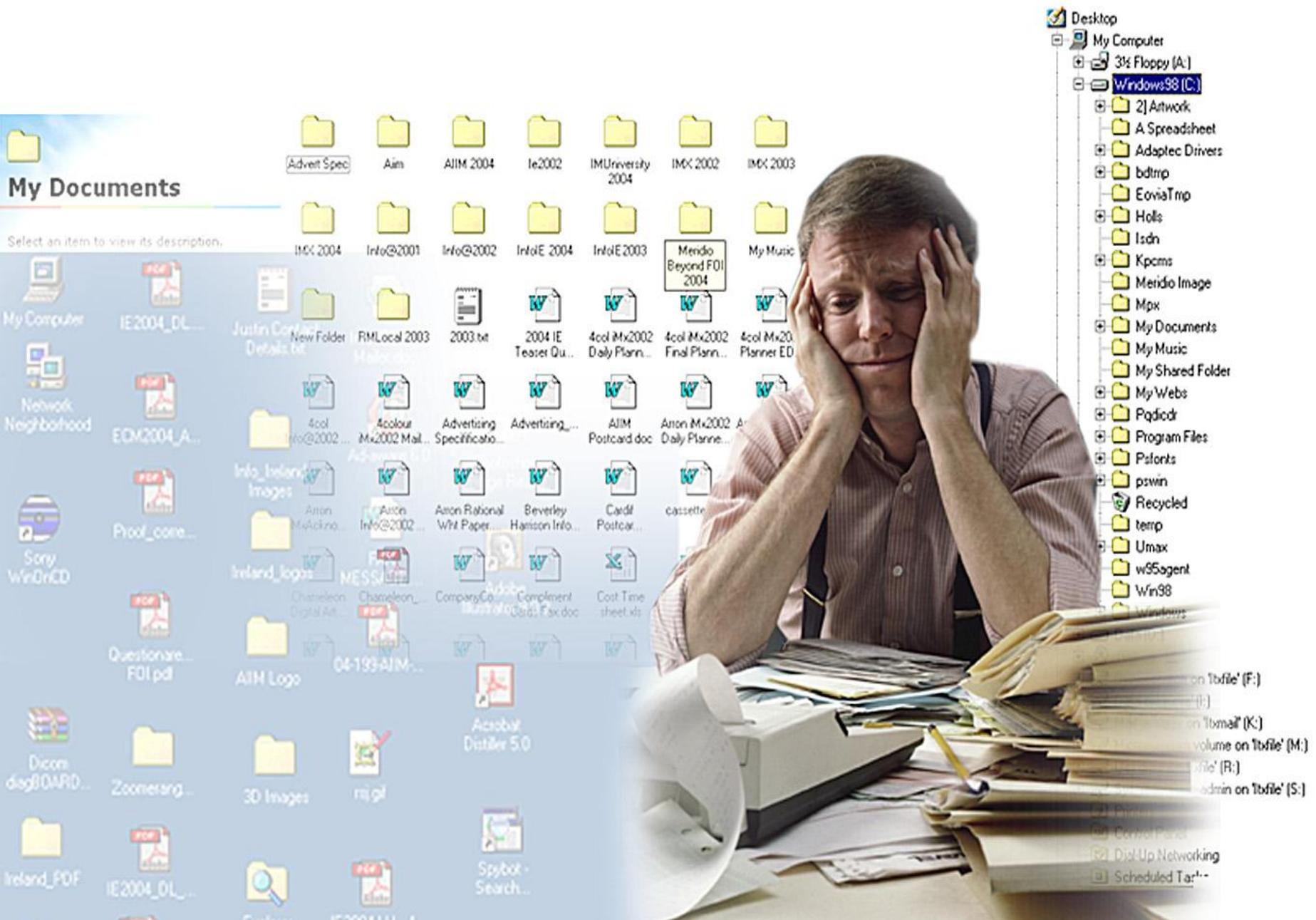
Přednáška č.9

Jan Valdman, Ph.D.
jvaldman@dns.cz

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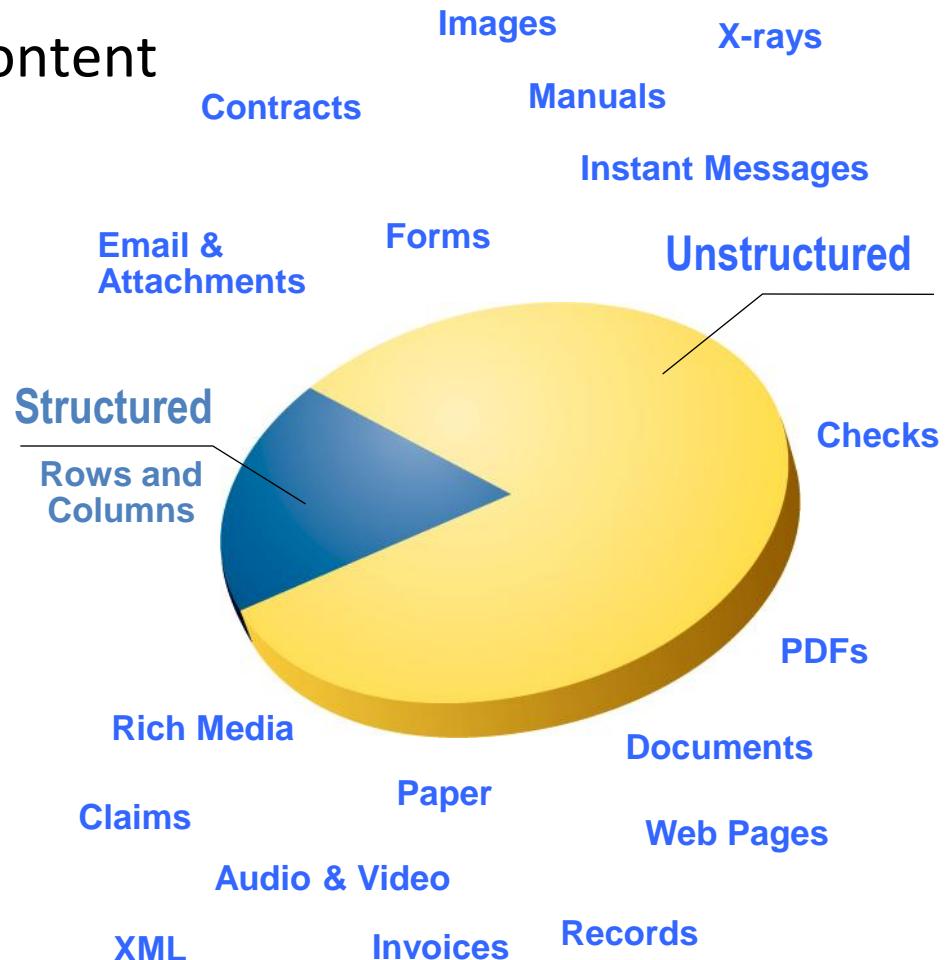
Enterprise Content Management (ECM)





Why we need ECM?

- The ECM platform helps manage unstructured content
 - Over 80% of enterprise content is unstructured
- Problems associated with unstructured content:
 - Ineffectively classified
 - Difficult to find
 - Not secure



What is ECM?

- The strategies, methods and tools used to capture, manage, store, preserve, and deliver content and documents related to key organizational processes.

CAPTURE MANAGE STORE PRESERVE DELIVER

- ECM = dokumenty + workflow + pravidla

- ECM is not a single system
- ECM usually is a group of aligned systems
- ECM is about ‘unstructured’ information

Unstructured information

- Used by humans
- Images
- Office documents
- Graphics and drawings
- Print streams
- Web pages and content
- E-mail
- Video
- Rich media assets

Structured information

- Processed by systems
- Databases
- Ordered data
- Sales and invoicing
- Accounting
- Human resources

So what is ECM?

All that is needed to be able to **manage**

all content within an enterprise

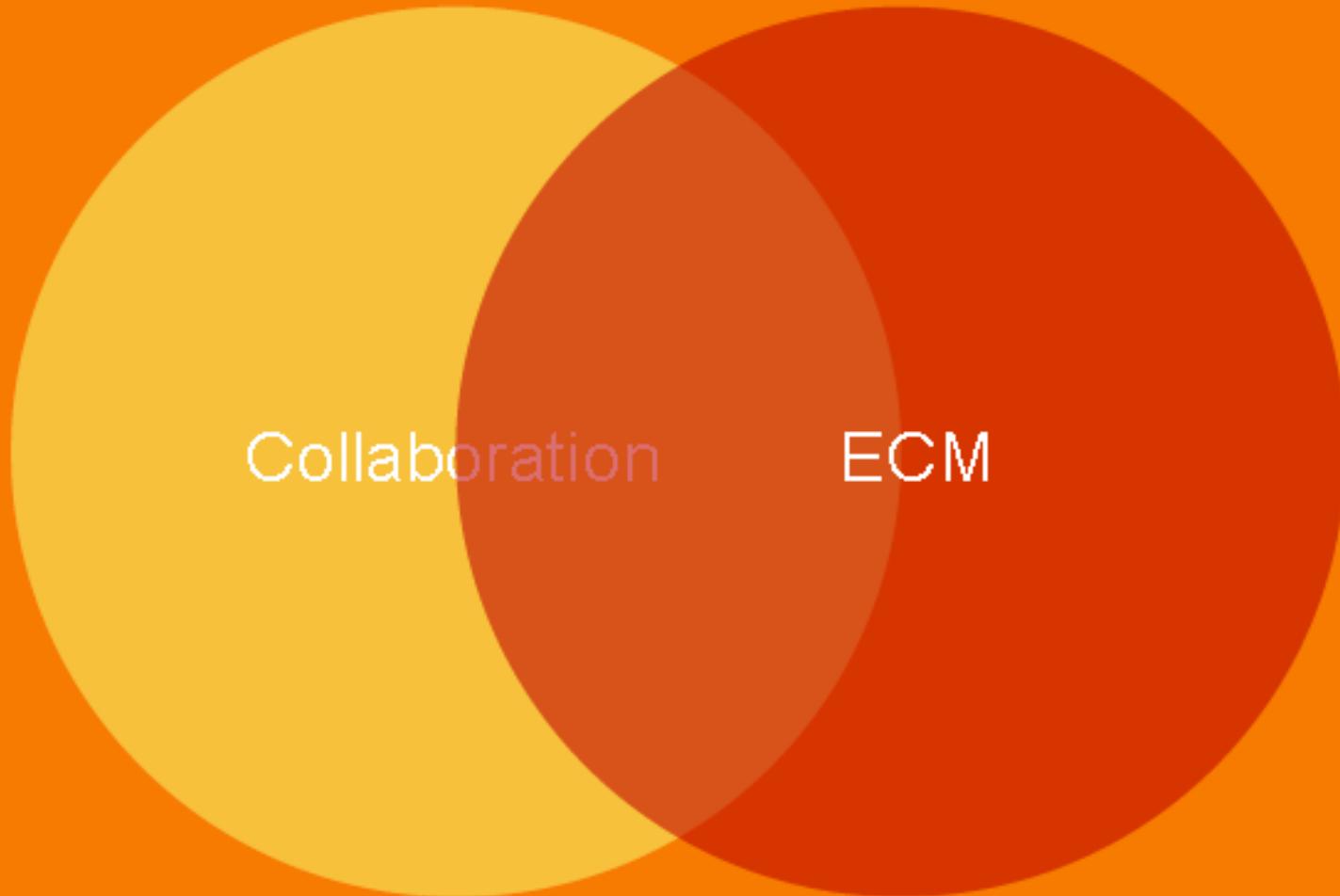
regardless of type, format or location

throughout the content's **life cycle**

so that it can be **found and used** when
needed

- FIND + USE

ECM & Collaboration are tightly intertwined



You've probably already
heard this story...

En polisbåt körde förbi, på väg uppför floden till stan. Pråmen gungade till i de svallvågor efter sig och när den väl lagt sig till ro igen satt på huk intill hyttedörren.

Nu kunde han höra musik inifrån. Ett tappande, vattenbassat beat. Han ville inte göra det, men han ville fanns ett sätt för honom att kunna kika in. Hittade en del av däcket som inte var alltför lade sig sedan platt på mage. Medan han sänkte han ned huvud och axlar och vände sig framåt så att han hörde vattenytan.

Han hörde rätt. Gardinerna på frändragna. När han kikade smutsiga glasrutan såg han två män. Sköna och rökte en cigarett. En annan man, liknande sned mun och tre dagars skäggstubb, sätter sweatshirt och jeans och lagade till en kokplatta. Musiken kom från en berghus på en hylla. Alex såg sig omkring i hyttan och britsar och miniatyrköket, erbjöd pråmen bekvämligheter. I stället hade den utriktat ändamål. Skoda och hans kamrat hade

The background of the slide features a large, white iceberg floating in a dark blue ocean under a light blue sky. The iceberg is mostly submerged, with only its white, textured top visible above the water's surface.

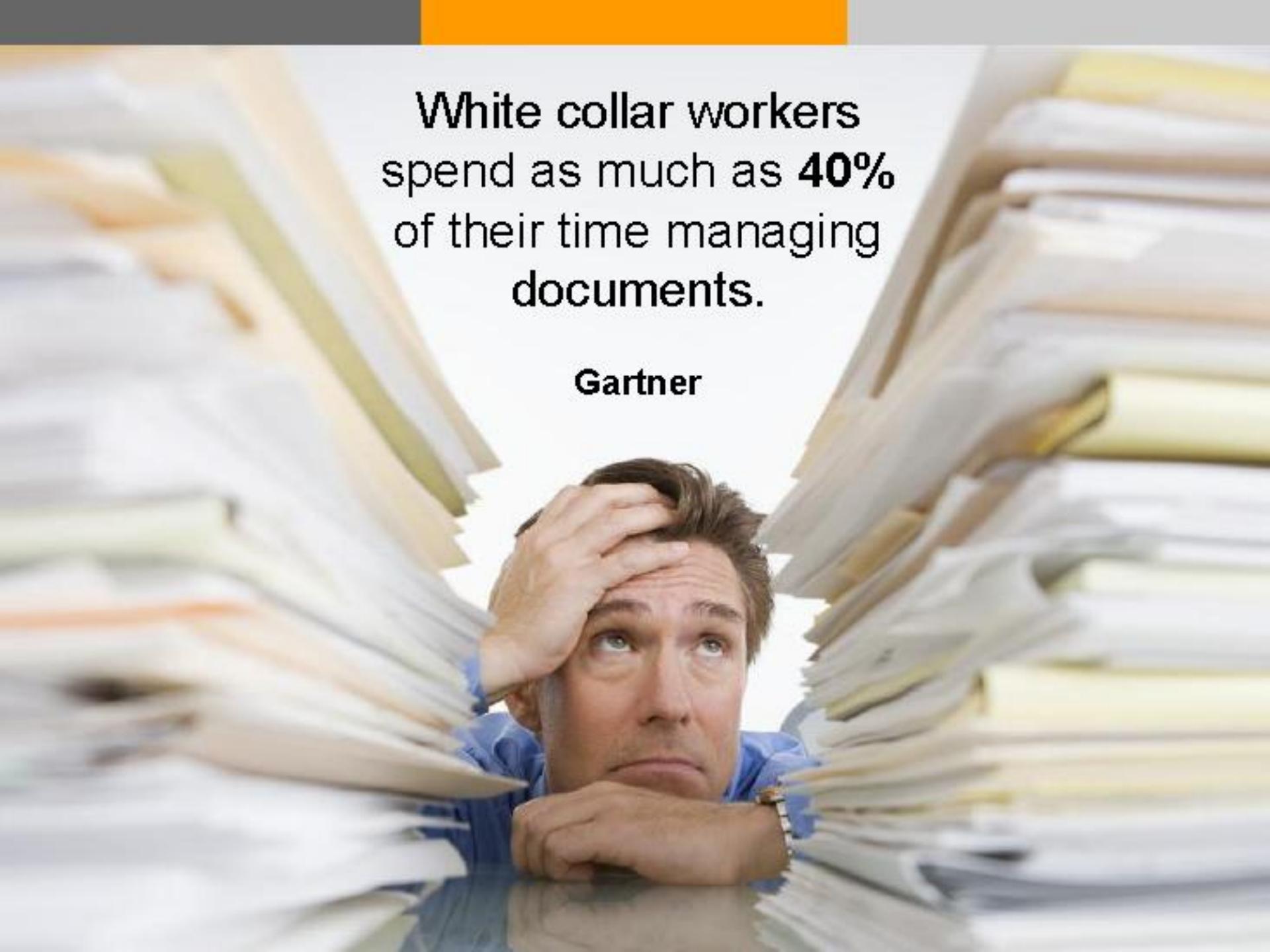
Over **80%** of
enterprise content
is unstructured.

Fulcrum Research



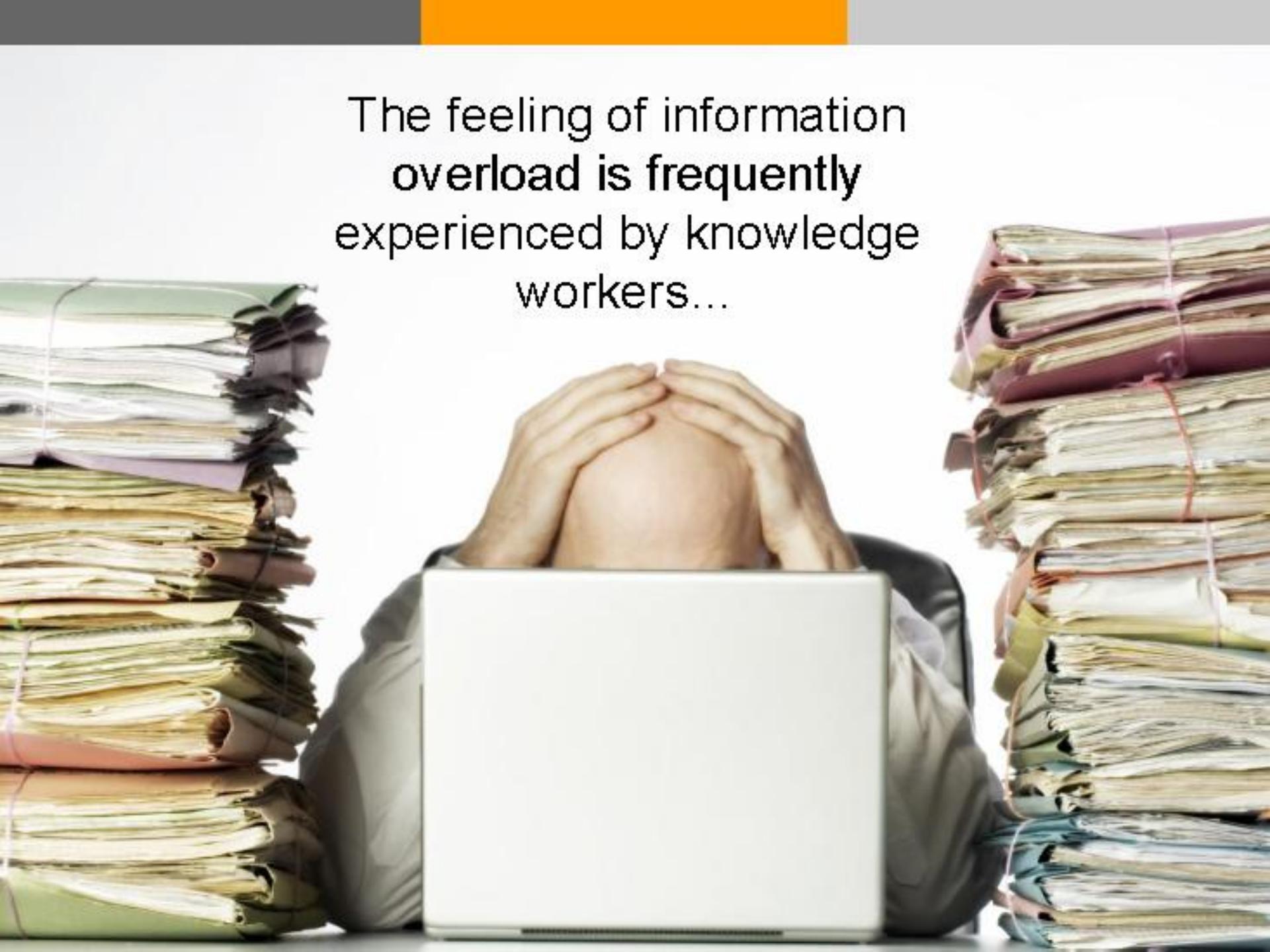
Content volume is growing by over **200%** per year.

Forrester Research

A photograph of a man with brown hair, wearing a blue button-down shirt, looking stressed and overwhelmed. He is surrounded by numerous stacks of papers and documents, which are blurred to suggest a large volume. His right hand is resting against his forehead, and his left hand is propped under his chin, looking upwards with a weary expression.

White collar workers
spend as much as **40%**
of their time managing
documents.

Gartner



The feeling of information
overload is frequently
experienced by knowledge
workers...

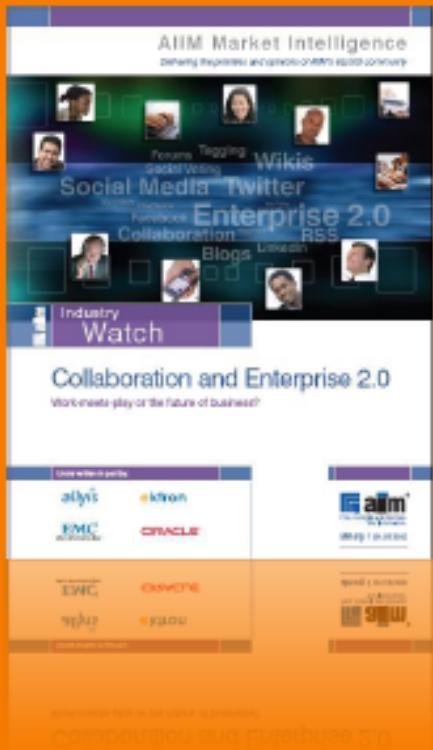


Knowledge workers spend from
15% to 35% of their time
searching for information.

15% of the time is spent on
duplicating existing information.

Searchers are successful in
finding what they seek **50%** of
the time or less.

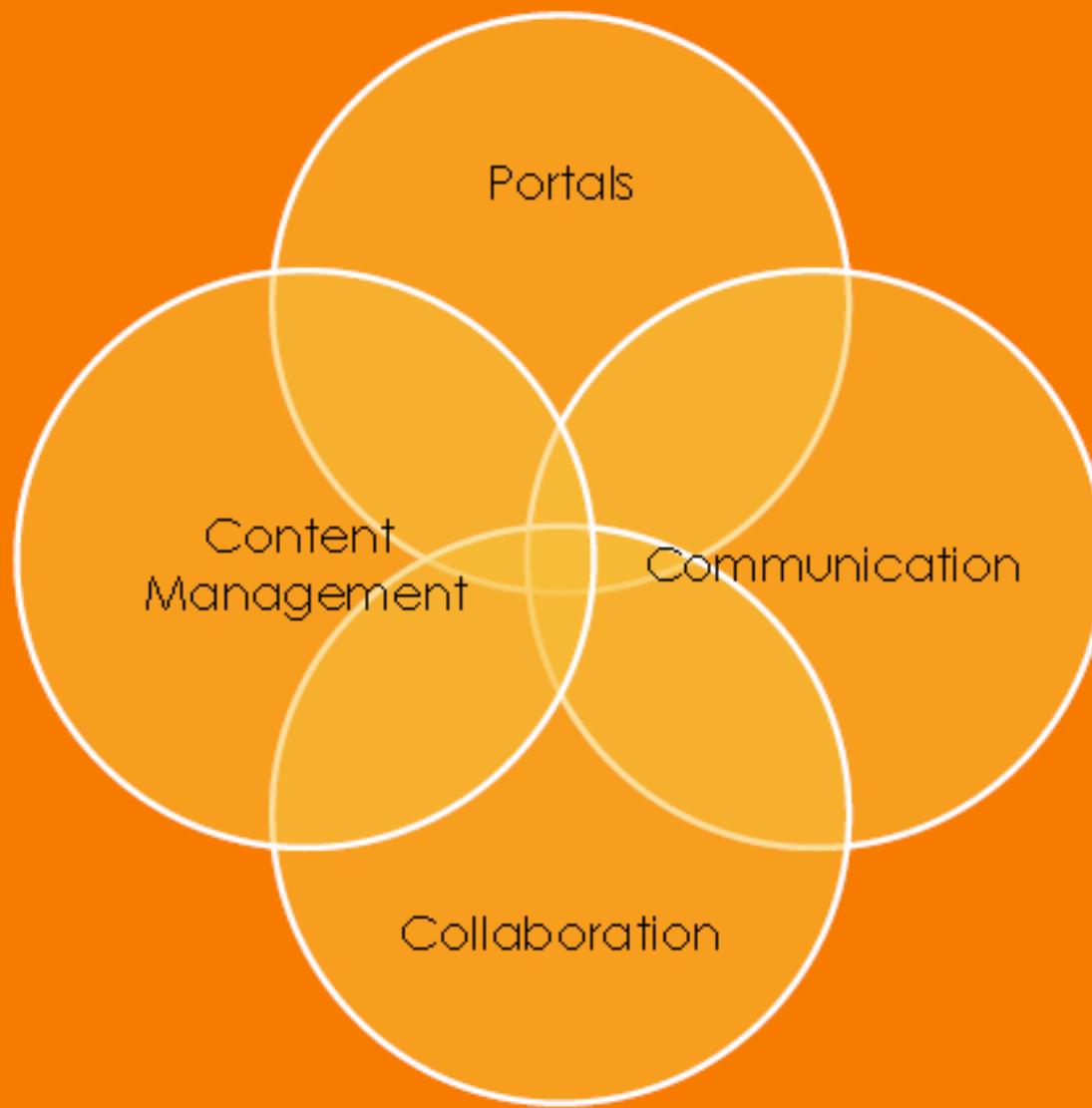
Source: IDC



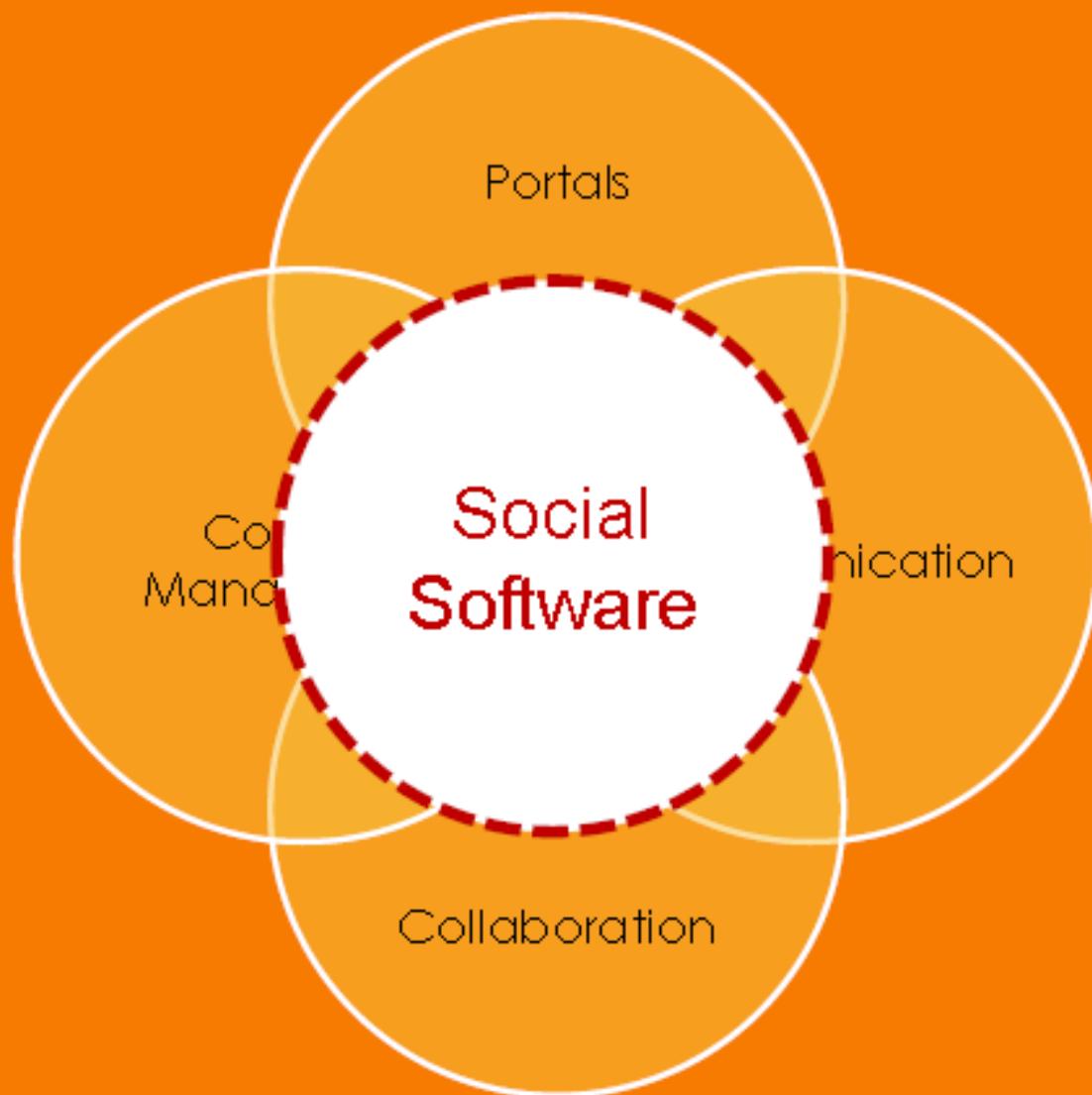
“ 71% agree that it is easier to locate "knowledge" on the web than to find it within their internal systems. ”

AIIM Industry Watch Collaboration and Enterprise 2.0, 2009

Technologies are converging

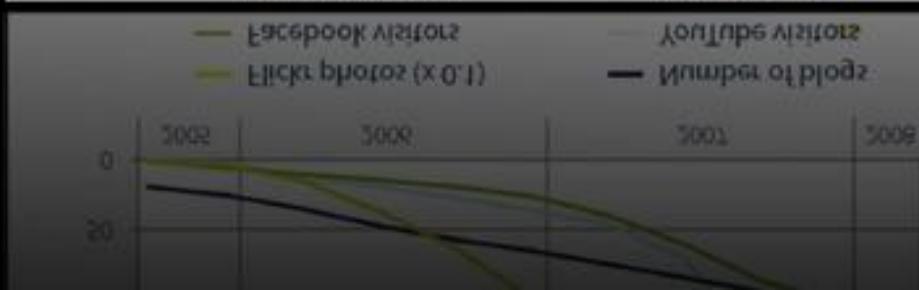
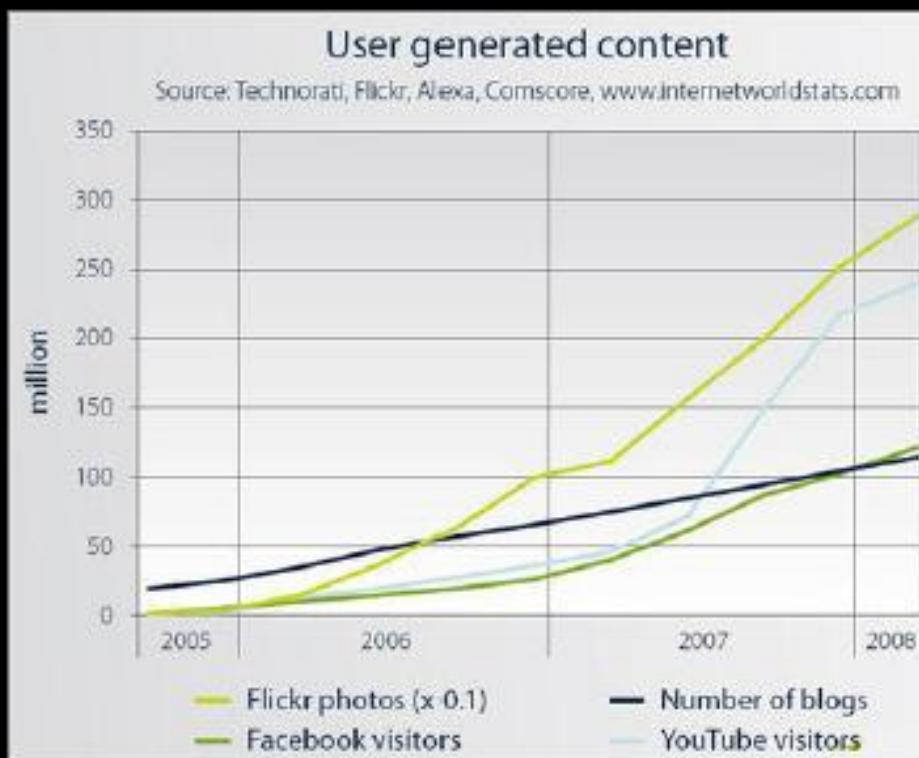


Social software is taking center stage



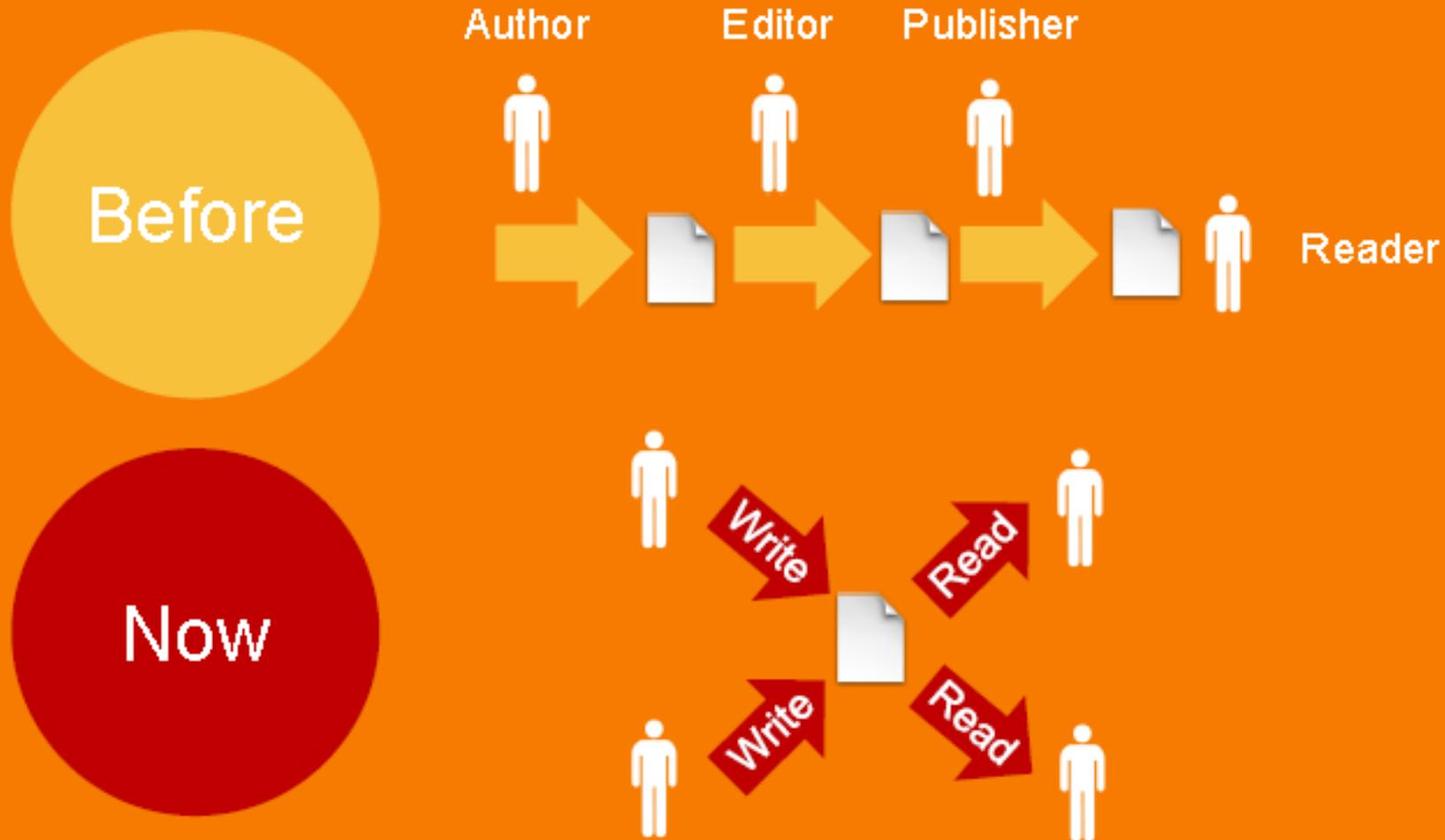
TREND #1

Exploding volumes of user generated content



TREND #2

The Read-Write Web is blurring roles



TREND #3

Content resides both inside and outside firewalls



Microsoft Word



Google Docs

TREND #4

Increasing structure and openness of documents



TREND #5

The notion of the term "document" is blurring

search again? spy! mapdango! New! what's buzzing! New! autopilot!

You said: 'new york, ny' Google Maps™ said: 'New York, NY, USA'

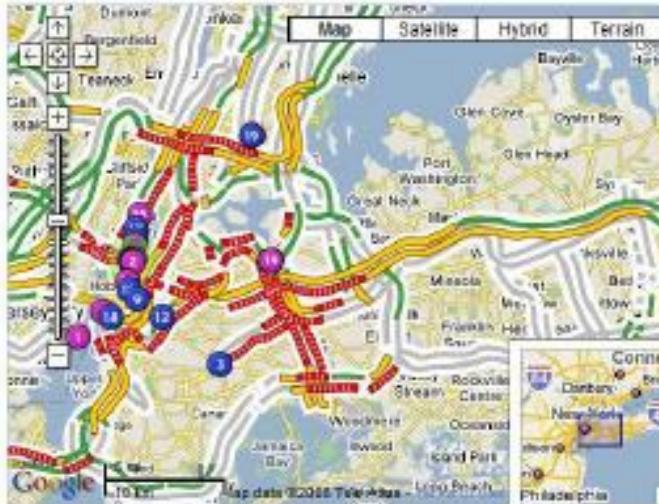
Latitude: 40.757929 | Longitude: -73.985508 Elevation (approximate): 45.9 feet (14 meters) Timezone: America/New_York (-5:00 GMT)

[WeatherBug](#) [Flickr](#) [Wikipedia](#) [Eventful](#) [Guru](#) [News & Books](#)

Wednesday's Forecast  Partly cloudy early.. then clearing. Lows in the lower 40s. Northwest winds 10 to 15 mph.. decreasing to around 5 mph after midnight.
High: 57°F
Low: 42°F

Thursday's Forecast  Mostly sunny in the morning.. then cloudy with rain likely late in the afternoon. Highs in the upper 50s. Light and variable winds.. becoming south 5 to 10 mph. Chance of rain 70 percent.
High: 68°F
Low: 48°F

Friday's Forecast  Partly cloudy with a chance of rain in the morning. Highs in the upper 50s. Light and variable winds.. becoming south 5 to 10 mph. Chance of rain 70 percent.
High: 65°F
Low: 45°F



Wednesday's Forecast (1)
From: 45.9
Update: 29.4
Info: Current traffic info for New York
Results are provided by Google's traffic analysis system. Please note that traffic conditions may change rapidly due to various factors.



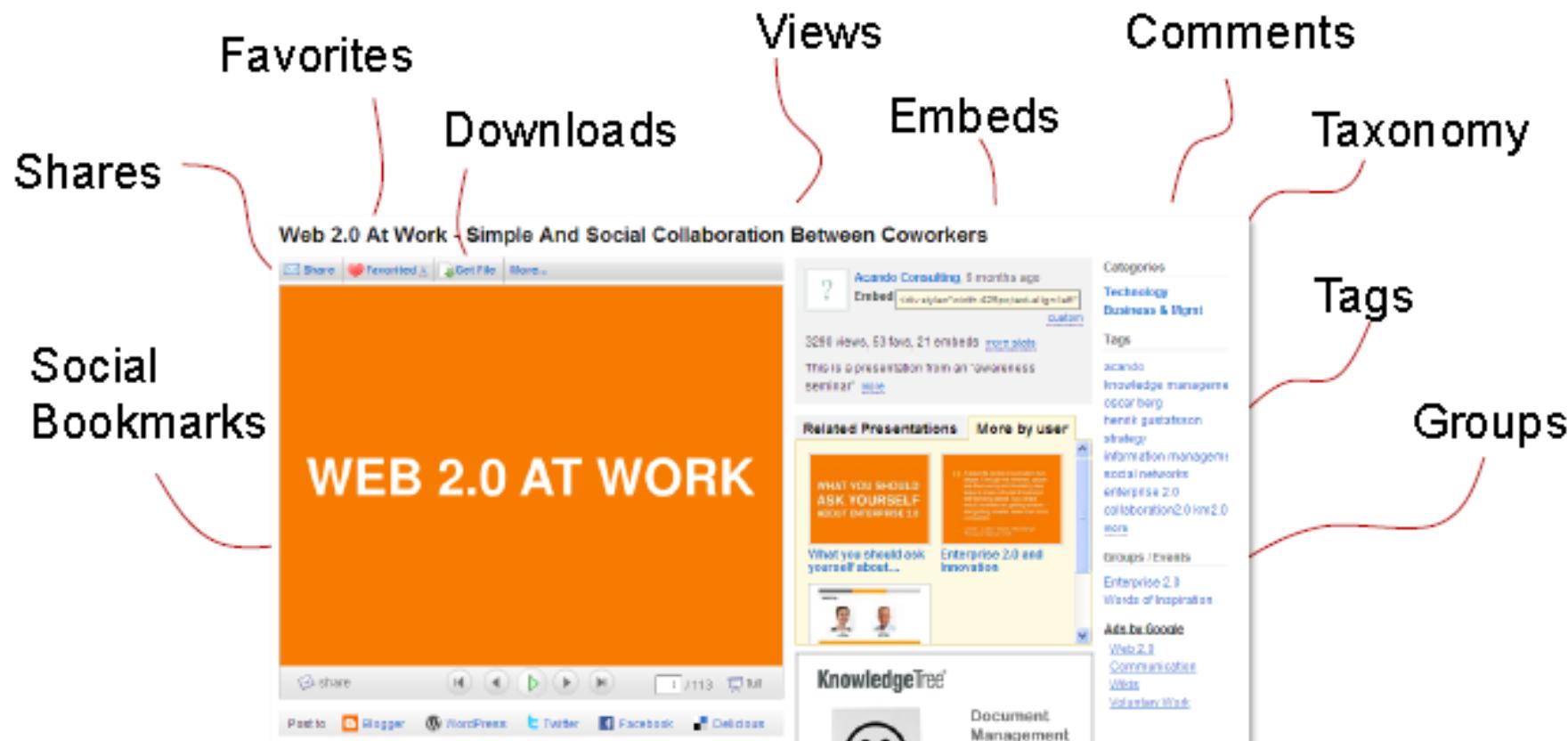
TREND #6

Conversations – content is just something to talk about



TREND #7

User-generated metadata



Typical ECM problems

Users can't find the info they need

Users don't know which tool to use, or
how

Users can't access the information
they need

Information security requirements
cannot be met

Problem complying with rules and
legislations

Common causes

Each business unit decides for itself

Lack of awareness of ECM problems

No clear policies and guidelines

No overview of the entire content landscape

Lack of vision and long-term strategy



Vision, strategy
and commitment

Top
Management

Common funding and
decision-making for
shared capabilities

Governance
Board

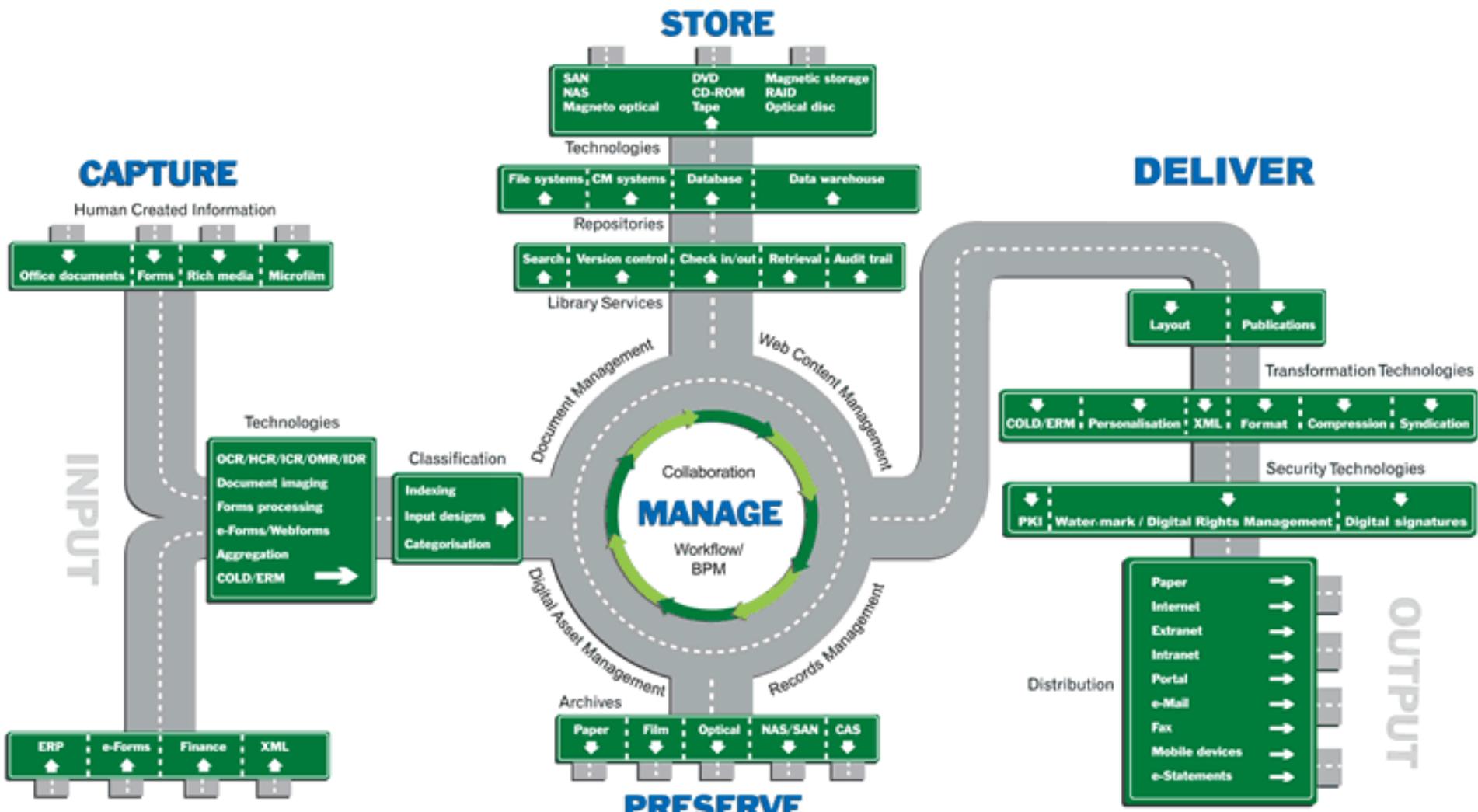
Business
Unit

Business
Unit

Business
Unit

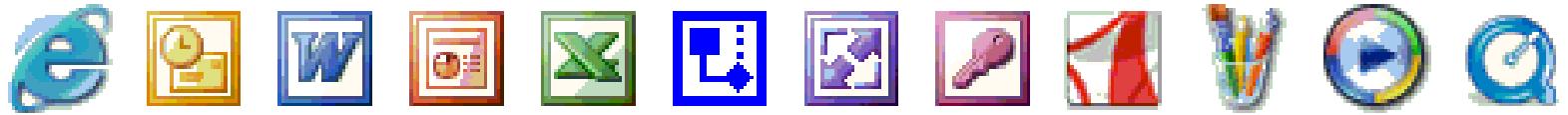
Competence Centre

ECM as shared service



2. Capture

- Capture - getting information from source into ECM system



Capture



ECM system

3. Manage - Key ECM technologies

- Imaging
- Document Centric Collaboration
- Electronic Document Management
- Electronic Records Management
- Email Management
- Workflow & Business Process Management
- Web Content Management & Portals
- Digital Asset Management
- Information Organization & Access

3. Manage – Document Centric Collaboration



- Collaboration is a working practice whereby individuals work together to a common purpose to achieve business benefit.
- Key features of collaboration tools are:
 - Synchronous collaboration: online meetings and instant messaging
 - Asynchronous collaboration: shared workspaces and annotations
- Many organizations are also looking at Free-form Collaboration tools to improve collaboration and reduce number of emails
 - Social Networking tools, blogs, and wikis

3. Manage - Document Management

- DM is an electronic capability that manages documents. Document can be defined as “recorded information or object which can be treated as a unit”.
- Key DM features are:
 - Check In / Check Out and Locking;
 - Version Control;
 - Roll back;
 - Audit Trail;
 - Workflow

4. Preserve

- Storage media obsolescence
 - Copy records to appropriate media before this becomes a problem
- Media degradation
 - Choose, store and protect
 - Bit-wise checking
 - Checksum calculation
- Format obsolescence
 - Technology preservation
 - Emulation
 - Migration
 - Exotic techniques



6-7. Deliver & Repurposing

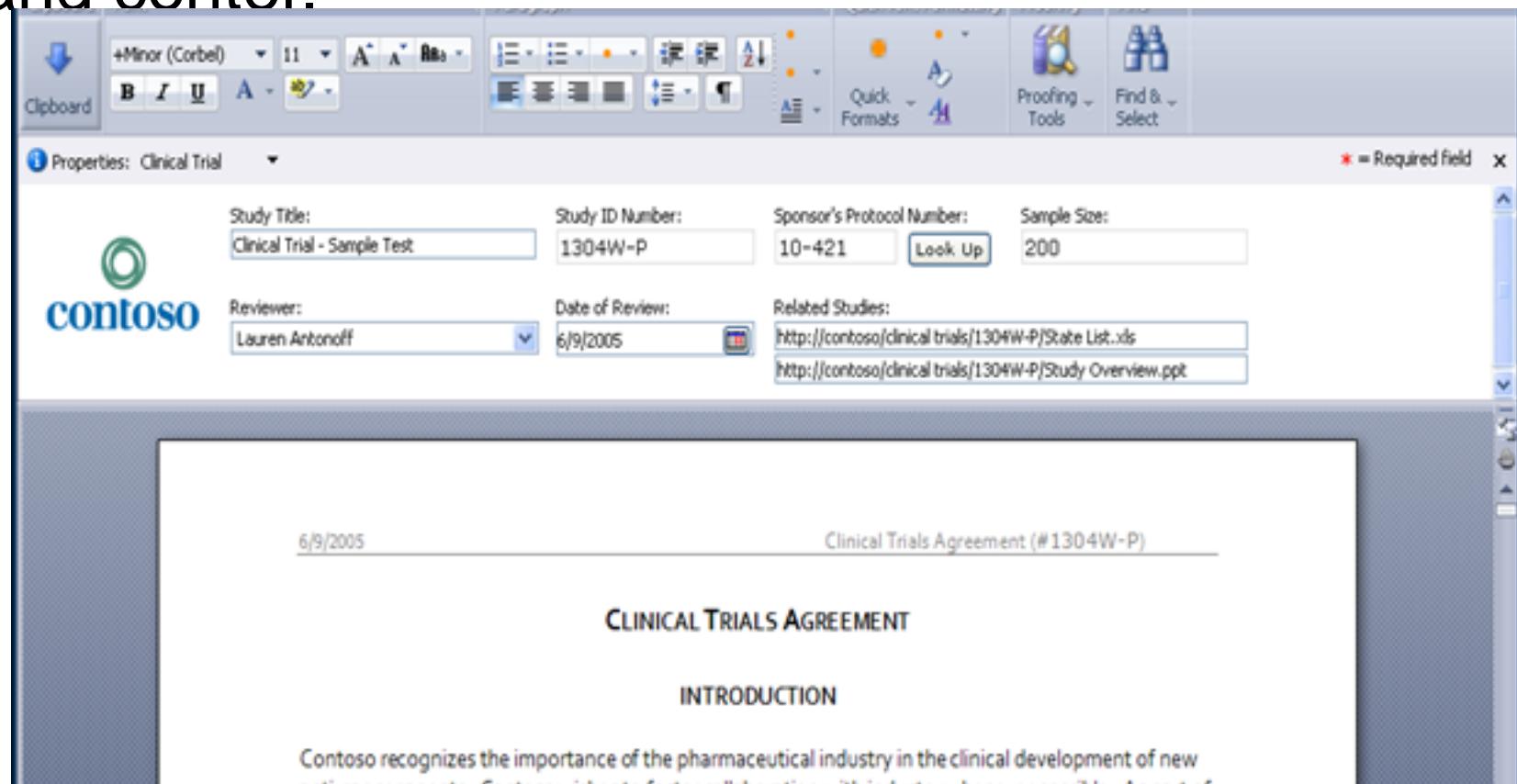


Distribution channels – you can deliver content via:

- Paper
- Internet / Intranet / Extranet(s)
- Portals
- E-Mail (perhaps with attachments)
- Fax (automatically)
- Mobile phone (web enabled, or by SMS ‘texting’)
- Personal Digital Assistants (PDA)
- XML – for display and/or data transfers
- Instant messaging
- Web-casting and content streaming
- RSS

8. Metadata

- Example of metadata in MS Office 2007
- New “Document Information Panel” can be customized by document type and brought front and center.



8. Metadata - types

One way to categorize metadata;

- **Descriptive:** Information describing the content used for search and retrieval.
- **Structural:** Information that ties this item with others, such as pages in a book, or the documents in a case folder.
- **Administrative:** Information used to manage and control access to the item.

Source: IMERGE Consulting

8. Metadata - standards

■ Dublin Core

■ The Dublin Core Metadata Initiative (DCMI) (Dublin, OH)

■ Now ISO 15836

The screenshot shows the homepage of the Dublin Core Metadata Initiative. At the top, there's a navigation bar with links for "ABOUT THE INITIATIVE", "DEM NEWS", "DOCUMENTS", "GROUPS", "RESOURCES", and "SEARCH". Below the navigation is a search bar with placeholder text "Enter keyword" and a "Search" button. The main content area features a large green banner for the "DC-2006: International Conference on Dublin Core and Metadata Applications" held in Maracanápolis, Brazil, from October 3-6, 2006. To the left of the banner is a sidebar with links for "Overview", "About the Initiative", "Directorate", "Board of Trustees", "Usage Board", "Advisory Board", "Bylaws", "FAQ", "Ready Reference", "DCMI Core Metadata Terms", "DCMI Elements", "DCMI Standard 1.082003", "DCMI Abstract Model", "Encoding Guidelines", "Schemas", "User Guide", "DCMI Usage Registry", "DCMI Results", and "Resources". To the right of the banner is a column for "Meetings Announcements", "DC-2006: International Conference on Dublin Core and Metadata Applications", "DC-2005: International Conference on Dublin Core and Metadata Applications", "Public Comment on changes to the DCMI Type Vocabulary", "DCMI Announcements", and "Role properties for Dublin-Core-based metadata". On the far right, there's a sidebar for "Affiliates" (including Finland, UK, Singapore, New Zealand, and Australia), "Contact Us" (with links for "Subscribe", "AskDCMI", "Feedback", "Work in Progress", "Public Comment", "Working Groups", and "Mentors"), and "About DCMI".

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Three main ways people look for information

- Pattern Matching (a.k.a., search) some particular attributes in the sought after information
 - E.g., words or phrases, proximity, etc.
- Navigation, or traversal – Finding a relevant asset that is linked to other assets
 - Traversing links looking at related information
- Classified or Categorized, organized by topic browsing
 - Using classification taxonomies and related structured organizations of information

11. Security & Access Control

- Key components of access control:
 - Identification
 - Authentication
 - Authorization
- Mechanisms that help implement access control:
 - Encryption
 - Digital signatures
 - Audit trail

12. Integration - goals

- End-to-end information management
- Information *flow* across system boundaries
- Information may be *locked* in legacy systems



Improving information flows and *unlocking* information leads to (among others):

- Improved efficiency
- Reduced cost
- Competitive advantage