



KIV/SI

Přednáška č.10

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

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Enterprise Content Management (ECM)

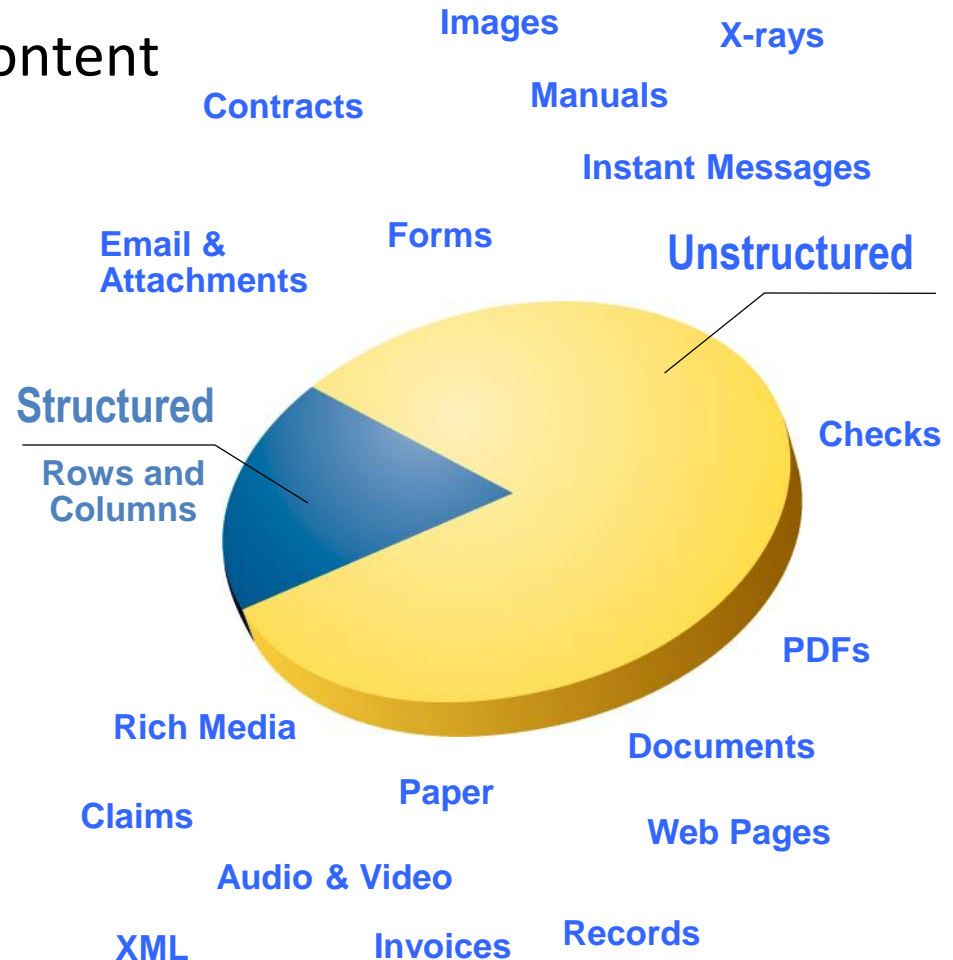


Today...



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



- 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

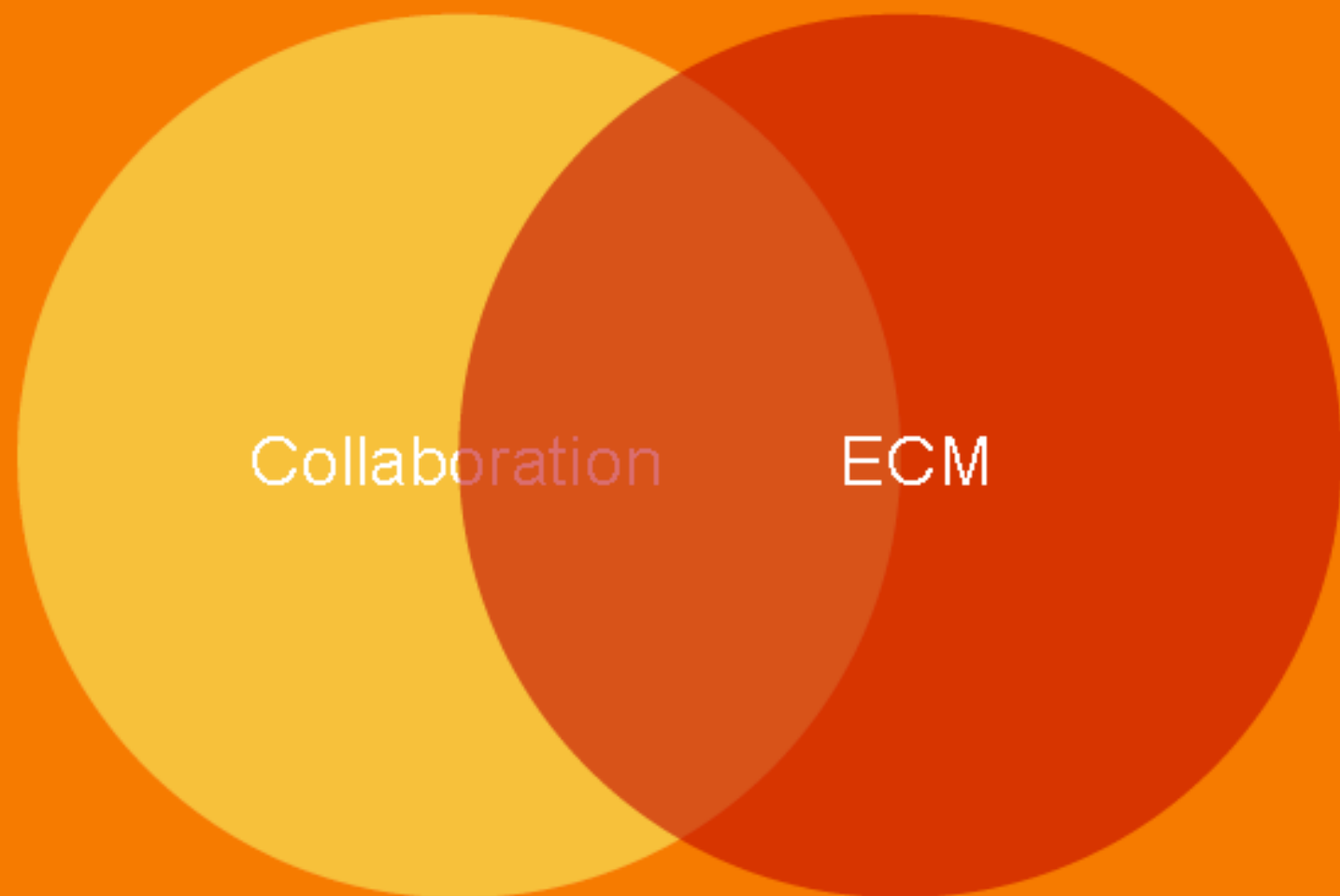
- Processed by systems
- Databases
- Ordered data
- Sales and invoicing
- Accounting
- Human resources

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



...sa markig plats att stå...
säker på vad han skulle göra, men han ville se vad som
fanns ombord. Bestämna sig kunde han göra senare.

Träbryggan knarrade under hans fötter när han steg
ut på den. Pråmen hette *Blue Shadow*, men det fanns
inte mycket blått kvar i den flagnande färgen, det rostiga
järnskrovet och det smutsiga, oljetäckta däcket. Pråmen
var omkring tio meter lång och mycket fyrkantig, med en
enda hytt mitt på däck. Pråmen låg lågt i vattnet och Alex
kände att större delen av bostadsytan skulle ligga under

...stan. Han satte sig på...
...skosnörena i hopp...
...smeda f...
...luggan...
...gna. V...
...göra...
Prå...
...på ena...
...De två


...vid sida på den andra. Skoda ville
...måste för den skull behöva ljus, och
...att dra för gardinerna på bortre
...där var floden. Enda problemet
...att kliva ombord på själva
...de andra fönstren. Han
...blick. Det måste vara värt
...byggplatsen. Ingen skulle

You've probably already
heard this story...

...de...
En polisbåt körde förbi, på väg uppför flod
till stan. Pråmen gungade till i de svallvåg
efter sig och när den väl lagt sig till ro ige
bord och satt på huk intill hytt dörren.

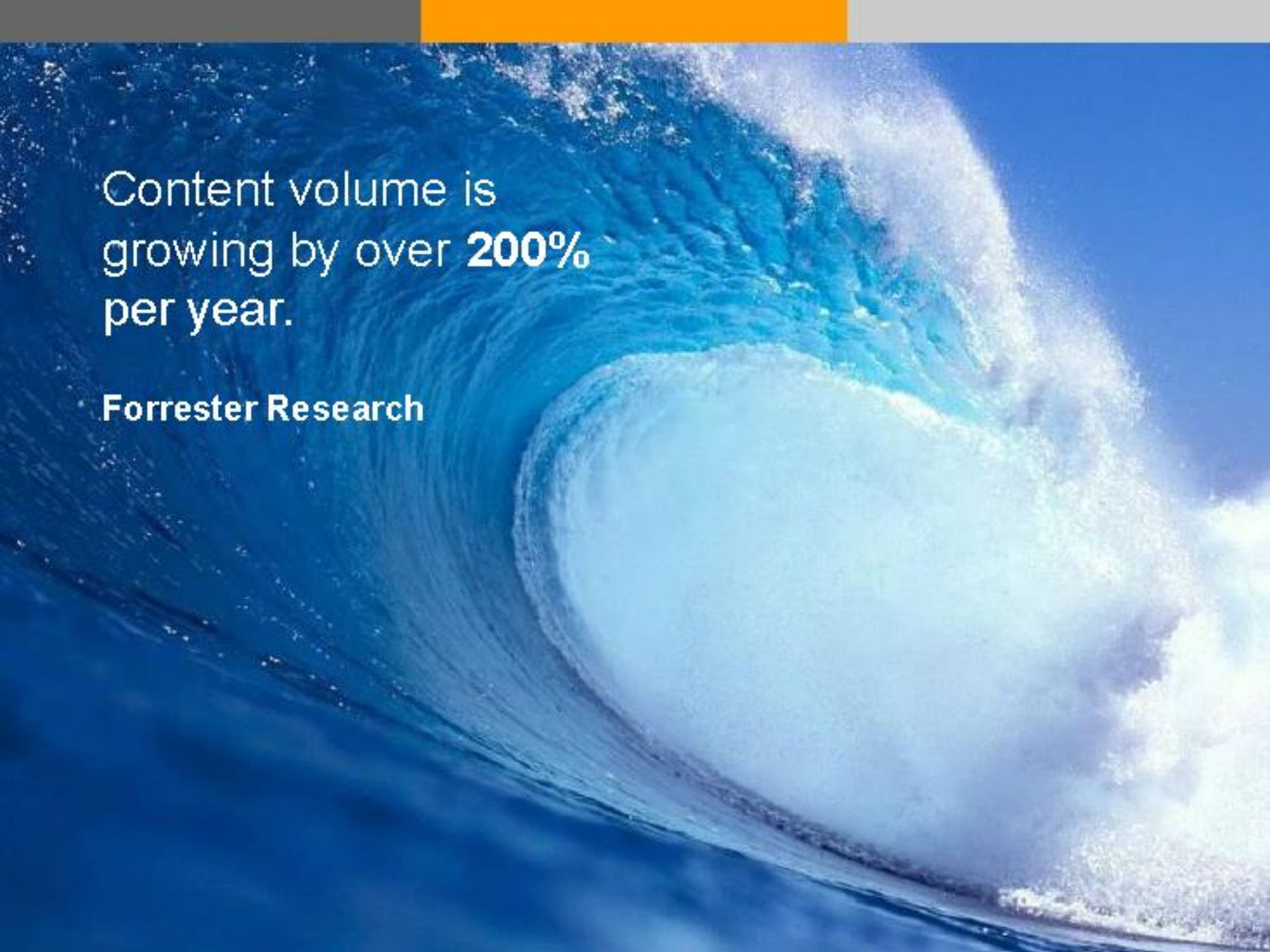
Nu kunde han höra musik inifrån. Ett r
beat. Han ville inte göra det, men han vi
fanns ett sätt för honom att kunna kika
hitta en del av däcket som inte var allt
lade sig sedan platt på mage. Medan han
ligger, sänkte han ned huvud och axlar
vade sig framåt så att han b
vattenytan.

...haft rätt. Gardinerna på
...fråndragna. När han kika
smutsiga glasrutan såg han två män. Sk
och rökte en cigarett. En annan man, l
sned mun och tre dagars skäggstubb, s
sweatshirt och jeans och lagade till en
kokplatta. Musiken kom från en berg
på en hylla. Alex såg sig omkring i hytt
britsar och miniatyrköket, erbjöd prä
bekvämligheter. I stället hade den utr
ändamål. Skoda och hans kamrat had



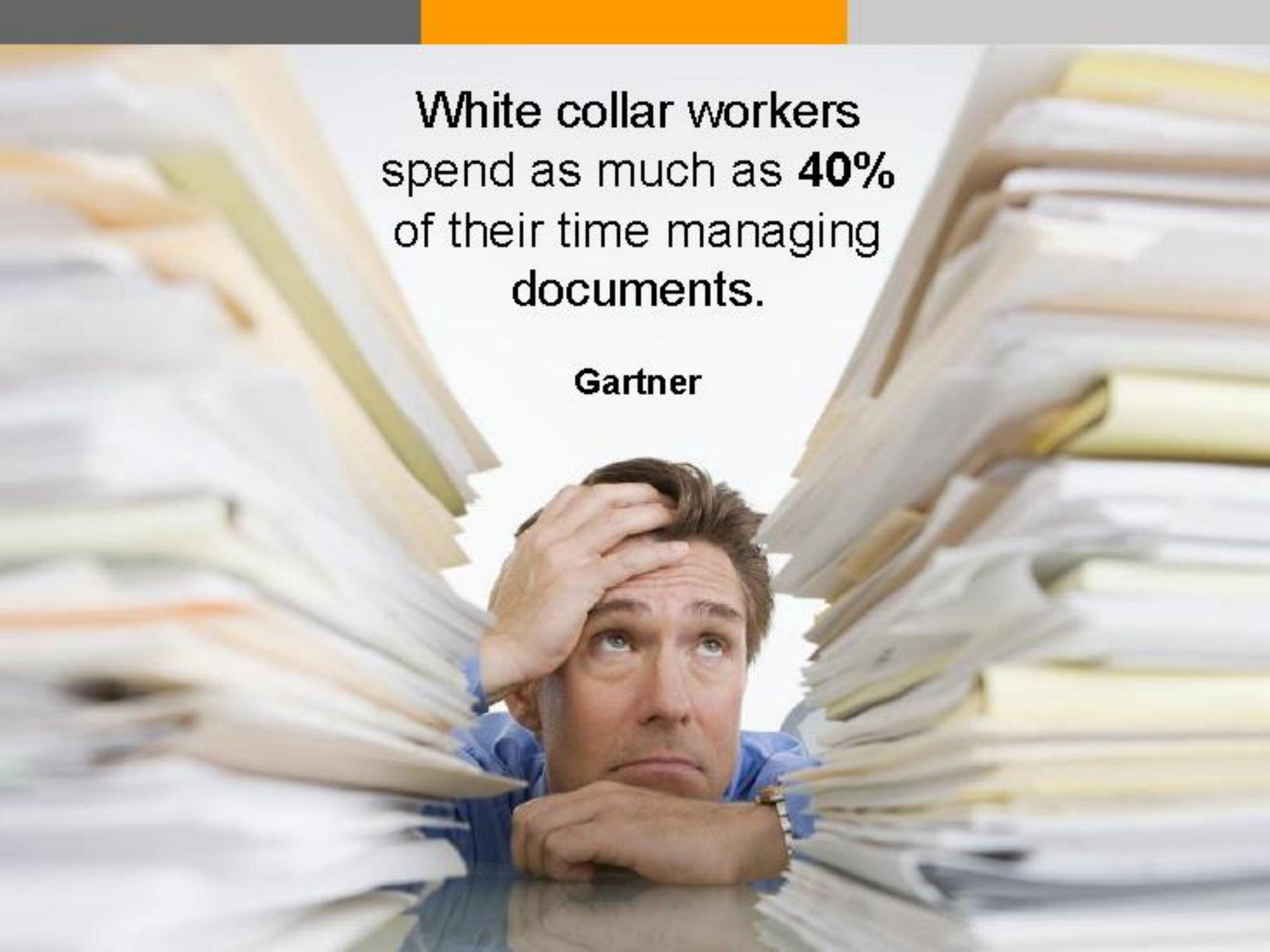
Over **80%** of
enterprise content
is unstructured.

Fulcrum Research

A large, powerful blue wave is crashing over a sandy beach. The water is a vibrant blue, and the white foam of the wave is prominent. The sky is a clear, bright blue. The wave is moving from the right side of the frame towards the left, creating a sense of motion and power.

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

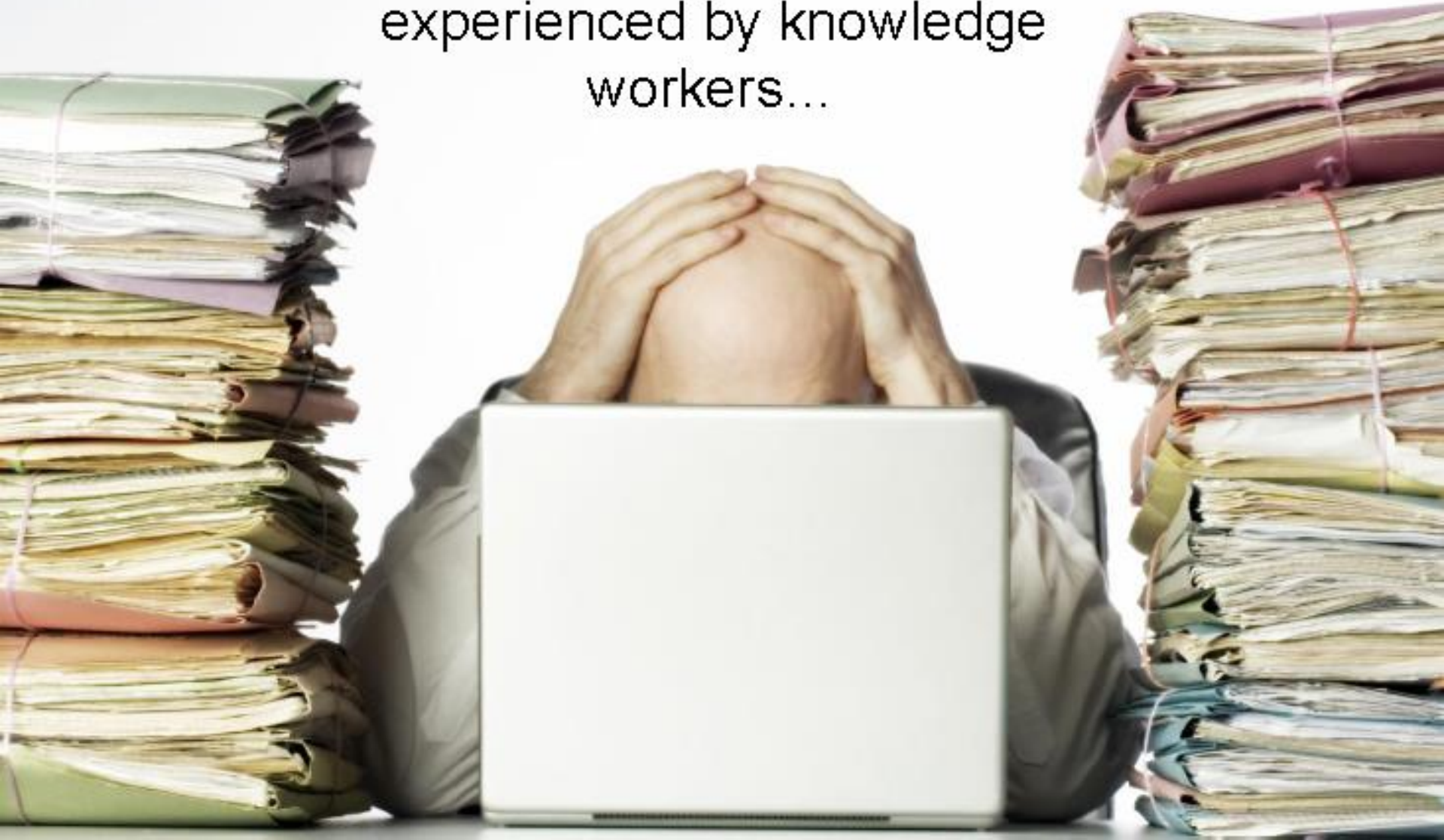
Forrester Research


A man in a blue shirt is looking up with a stressed expression, his hand on his forehead. He is surrounded by a massive, towering stack of papers and folders that fills the frame, creating a sense of being overwhelmed by a large volume of work.

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...



A hand holding a white marker is positioned on the left side of the image, as if about to write on the green chalkboard background. The hand is light-skinned and is holding the marker in a tripod grip. The marker is white with a blue band near the tip. The background is a solid green color, typical of a chalkboard, with a dark grey and orange horizontal bar at the top.

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.

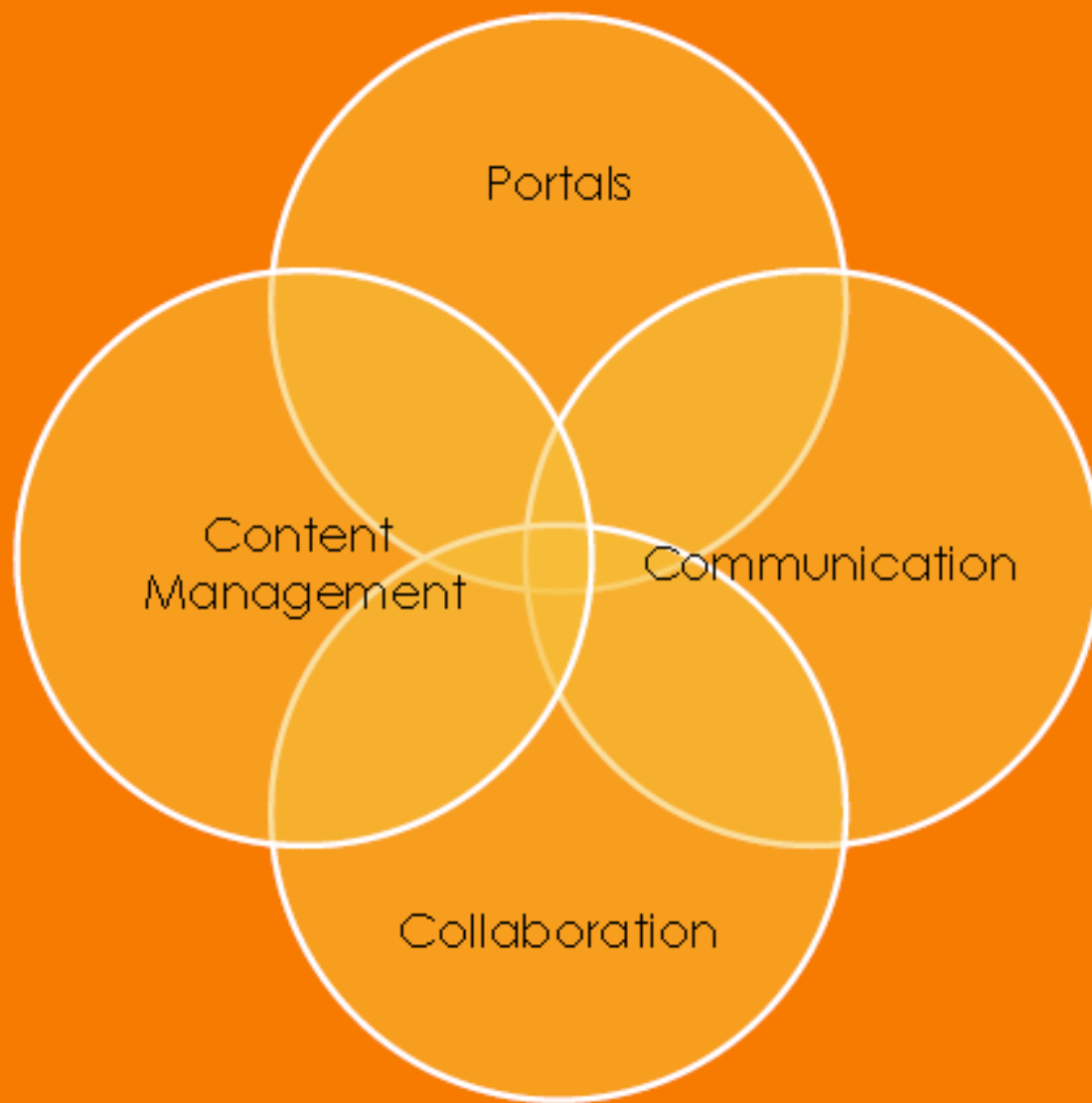
Source: IDC



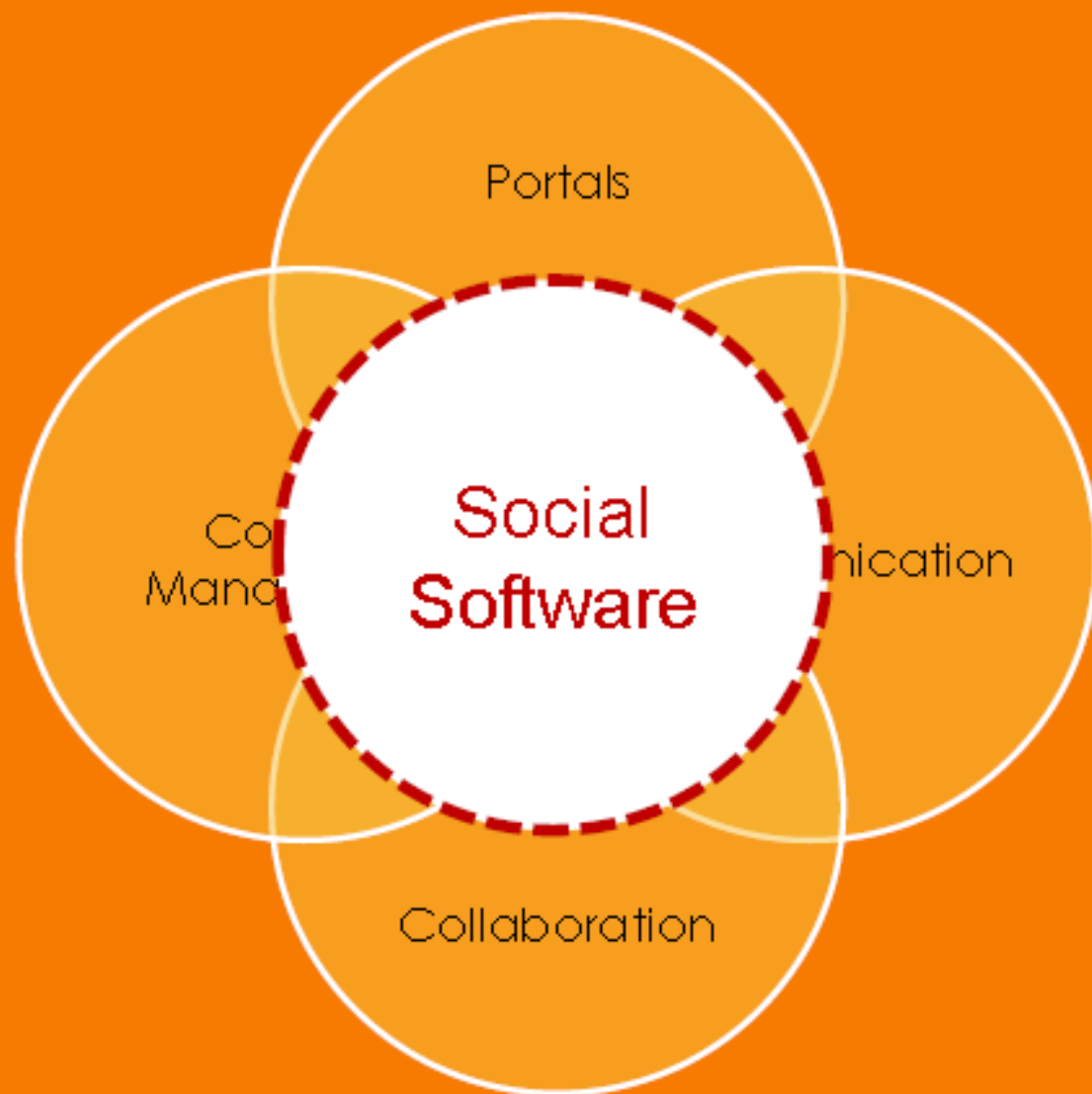
“ 71% agree that it is easier to locate "knowledge" on the web than to find it within their internal systems. ”

AIMM Industry Watch Collaboration and Enterprise 2.0, 2009

Technologies are converging

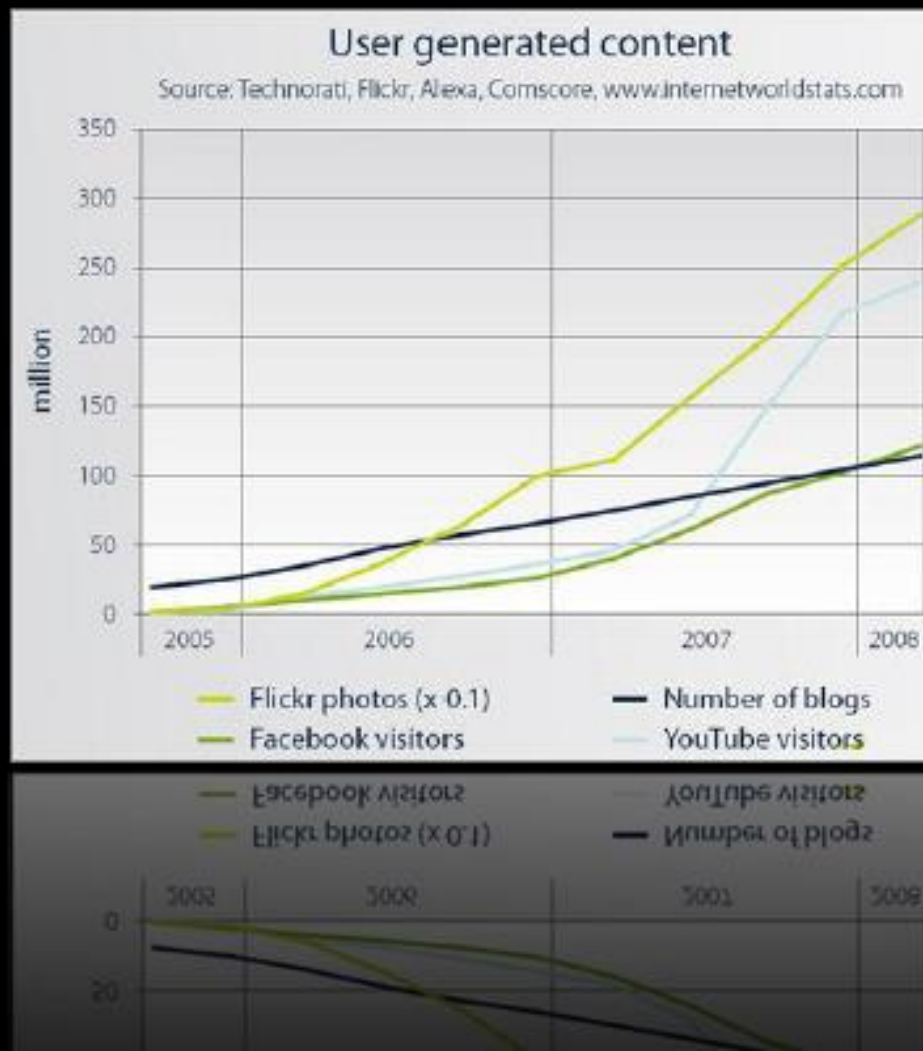


Social software is taking center stage



TREND #1

Exploding volumes of user generated content



TREND #2

The Read-Write Web is blurring roles

Before



Now



TREND #3

Content resides both inside and outside firewalls



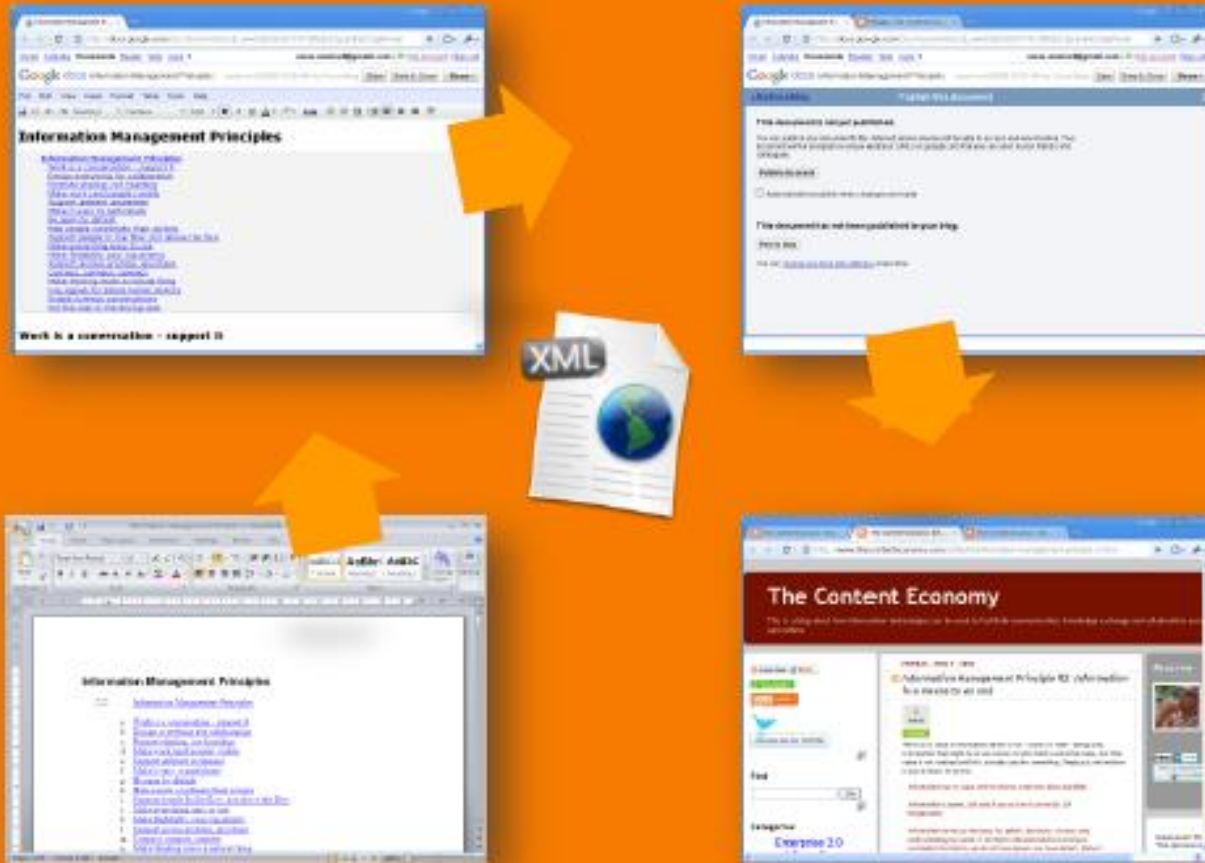
Microsoft Word



Google Docs

TREND #4

Increasing structure and openness of documents



TREND #5

The notion of the term "document" is blurring


search again? [spy!](#) [mapdangit!](#) [New! what's buzzing!](#) [New! autopilot!](#)

You said: 'new york, ny' Google Maps™ said: 'New York, NY, USA' [Print a Report for New York, NY, USA](#) **mapdango™**

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


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

Wednesday's Forecast [↗](#) [amazon kindle](#)




Partly cloudy early... then clearing. Lows in the lower 40s. Northwest winds 10 to 15 mph... decreasing to around 5 mph after midnight.
High: -°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: 58°F
Low: 48°F

Friday's Forecast [↗](#)





The map shows New York City with various traffic overlays in red and yellow. Navigation controls are visible at the top and bottom of the map area.

Friday's Forecast [↗](#)



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TREND #6

Conversations – content is just something to talk about



TREND #7

User-generated metadata

The image shows a screenshot of a video player interface with several annotations pointing to specific features. The video player itself displays a presentation titled "WEB 2.0 AT WORK" with a large orange background and white text. The player includes a progress bar, a share button, and social media sharing options (Post to Blogger, WordPress, Twitter, Facebook, Dribbble). The video title is "Web 2.0 At Work - Simple And Social Collaboration Between Coworkers".

Annotations and their corresponding features:

- Shares**: Points to the share button in the video player interface.
- Social Bookmarks**: Points to the social media sharing options (Blogger, WordPress, Twitter, Facebook, Dribbble) at the bottom of the player.
- Favorites**: Points to the "Favorited" button in the video player interface.
- Downloads**: Points to the "Get File" button in the video player interface.
- Views**: Points to the "3288 views" text in the video player interface.
- Embeds**: Points to the "21 embeds" text in the video player interface.
- Comments**: Points to the "21 comments" text in the video player interface.
- Taxonomy**: Points to the "Categories" section on the right sidebar, which lists "Technology" and "Business & Profit".
- Tags**: Points to the "Tags" section on the right sidebar, which lists various tags like "acendo", "knowledge management", "social networks", etc.
- Groups**: Points to the "Groups / Events" section on the right sidebar, which lists "Enterprise 2.0" and "Words of Inspiration".

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

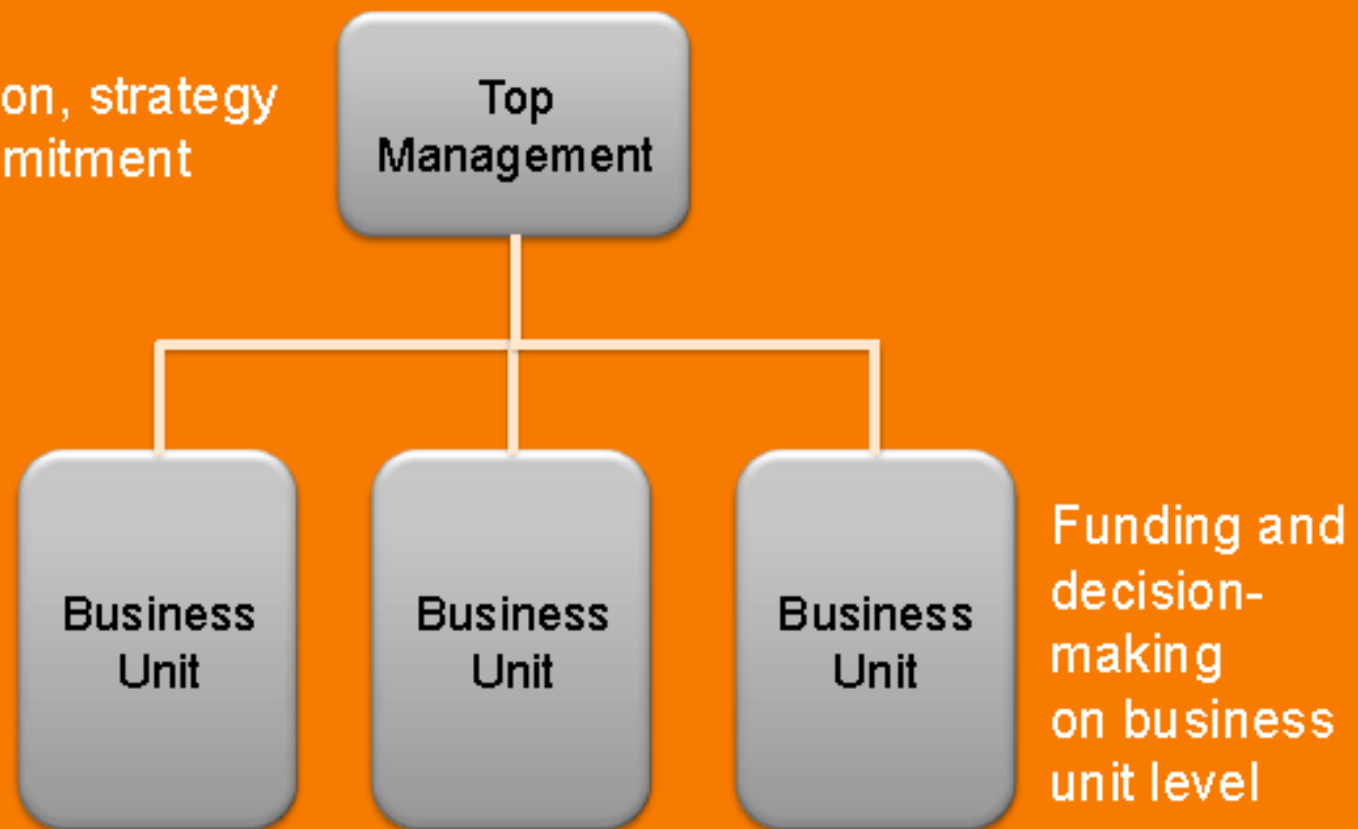
Lack of awareness of ECM problems

No clear policies and guidelines

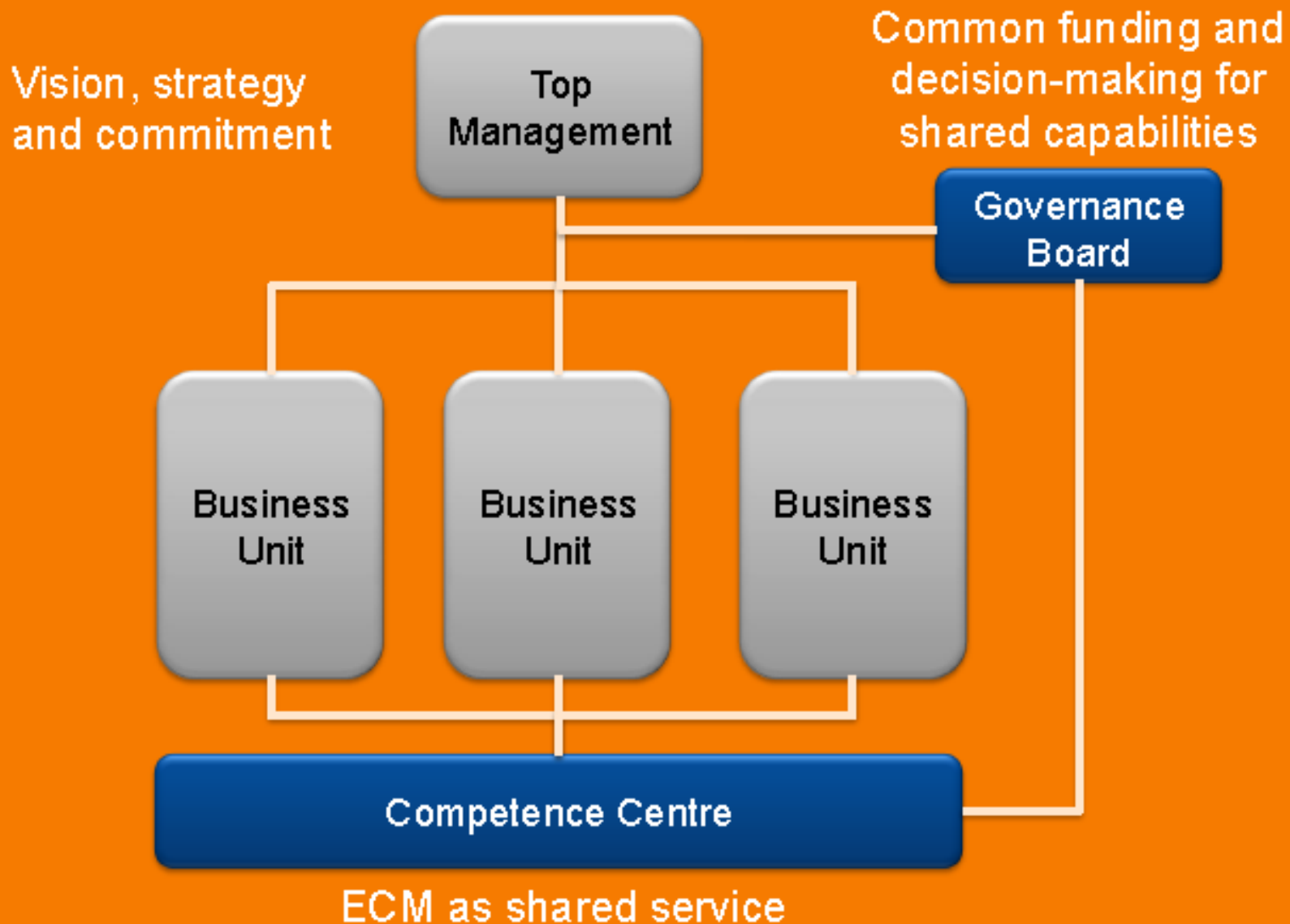
No overview of the entire content
landscape

Lack of vision and long-term strategy

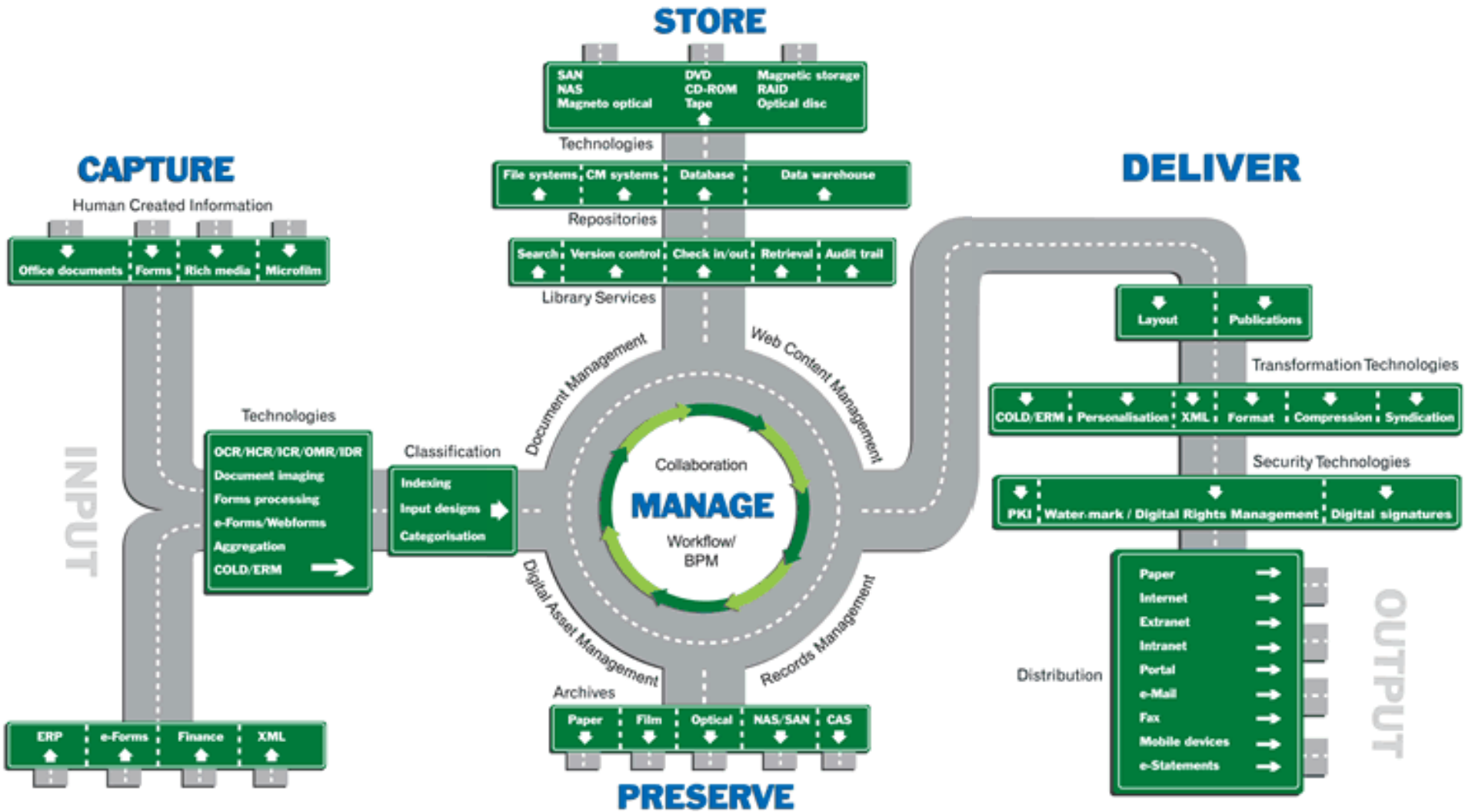
No vision, strategy
or commitment



Not enough resources, skills or
support for ECM

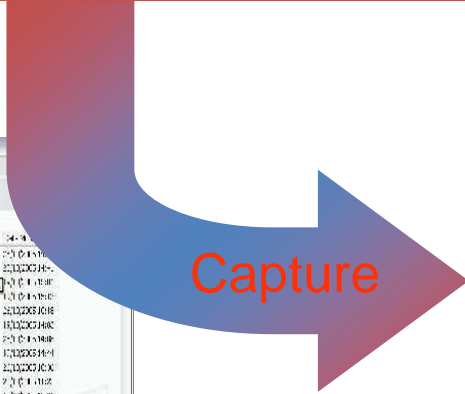
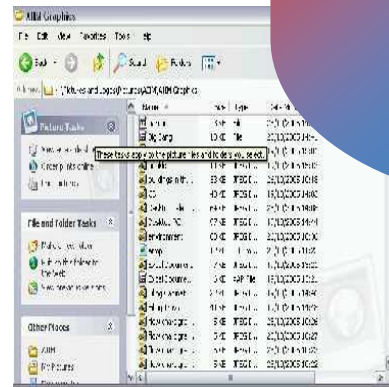
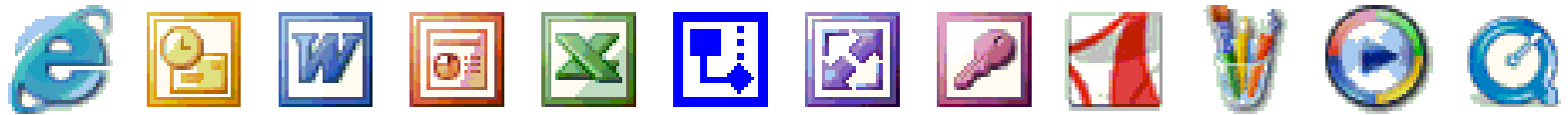


ECM Concepts



2. Capture

- Capture - getting information from source into ECM system



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

- 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

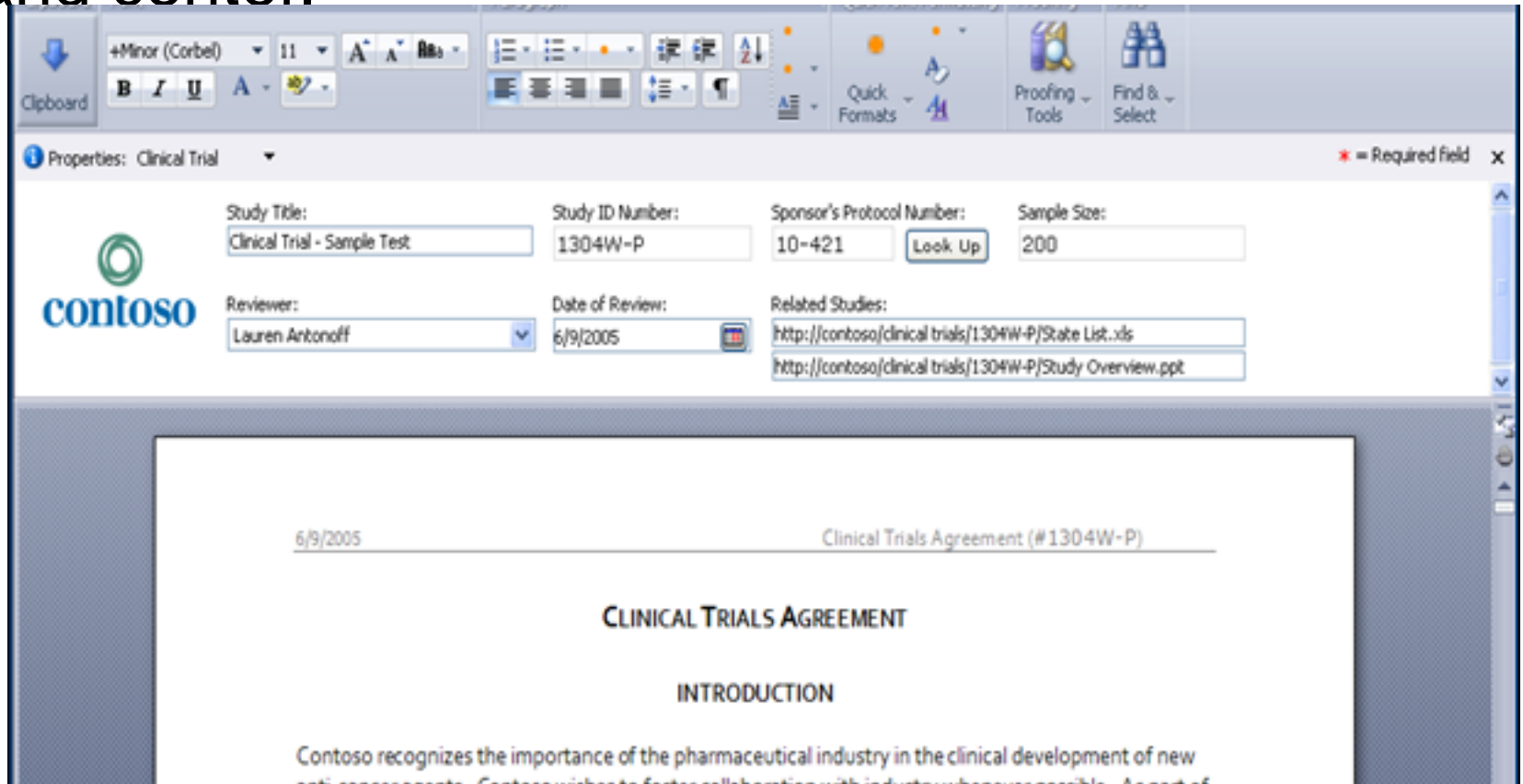


Distribution channels – you can deliver content via:

- 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.



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



Creator

Contributor

Publisher

Coverage

Source

Title

Date

Type

Rights

Language

Subject

Description

Format

Relation

Identifier

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

- 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

Advanced Case Management



Content se využívá dvěma způsoby:

- standardní opakovatelné procesy (workflow) – žádost o půjčku
- nestandardní situace /kauzy (case) – stížnost, ztráta, ...

Nestandardní situace vyžadují shromáždění předem neznámého množství a druhu informací z různých zdrojů a spolupráci mnoha osob = chaos

ACM je způsob využití ECM pro tyto situace s cílem zvýšení pořádku, transparentnosti, zlepšení rozhodování