



# InterPARES 3 Project

International Research on Permanent Authentic Records in Electronic Systems

TEAM Turkey

## *Convergence of Records Management (RM) and Enterprise Content Management (ECM) in the Digital Environment*

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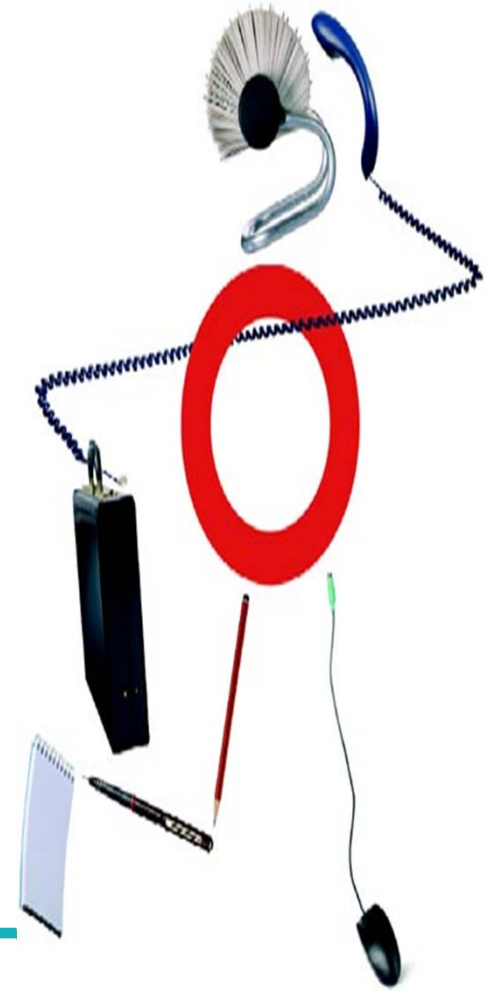
# *Records and Records Management as the Source of Enterprise Communication and Information*

## *Records;*

- *documentary sources*
- *widely used for communication and authentication purposes (Cisco and Strong, 1999, p.172)*
- *contain authentic information on the business process*
- *evidential value*

## *Records Management;*

- *systematic approaches to the creation*
- *editing, distribution, effective use and sorting of the records (ISO 15489, 2001, p.3; Külçü, 2009, p.265).*



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# *Records and Records Management as the Source of Enterprise Communication and Information*

## *Records;*

- *enable and facilitate enterprise activities in terms of:*
  1. *Executing the work, of which they form a part, regularly, effectively and legally,*
  2. *Enabling the continuity and consistency of the services,*
  3. *Supplying the policies, resolutions and outputs to the stakeholders and administrative units,*
  4. *Harmonizing with administrative and legal requirements, including supervision,*
  5. *Preventing any legal dispute,*

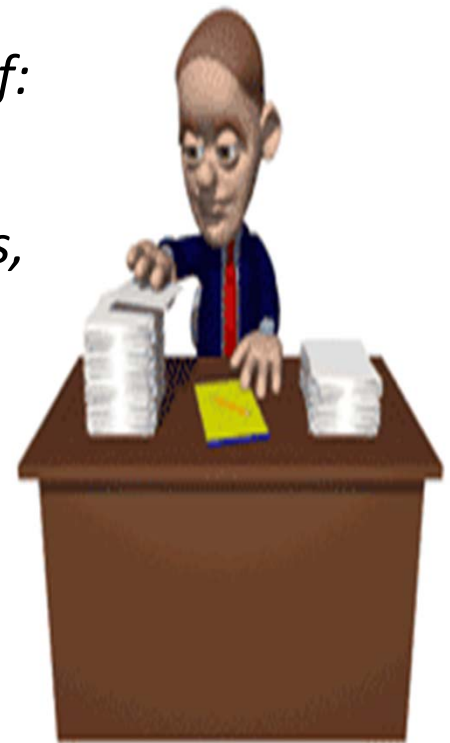


# *Records and Records Management as the Source of Enterprise Communication and Information*

## *Records;*

*- enable and facilitate enterprise activities in terms of:*

- 6. Fulfilling financial and ethical responsibilities,*
- 7. Protecting the rights of employees, customers, and other stakeholders, along with the interests of the enterprise,*
- 8. Ensuring the continuity of work in case of emergency,*
- 9. Rendering the collective and corporate memory continuous (Sprehe, 2005, p.298).*



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# *Scope of the Electronic Records Management...*

- *include;*
  - *management of the electronic copies of printed records*
  - *born digital records*
- *Electronic records management systems either include;*
  - *creation of electronic records and files*
  - *e-mail management*
  - *scanning and access*
  - *integration of work flow*
  - *user interfaces*
  - *mobile working environment*
  - *remote access ... etc.*
- *or become a part of the applications made in this regard (Azad, 2008, p.298).*



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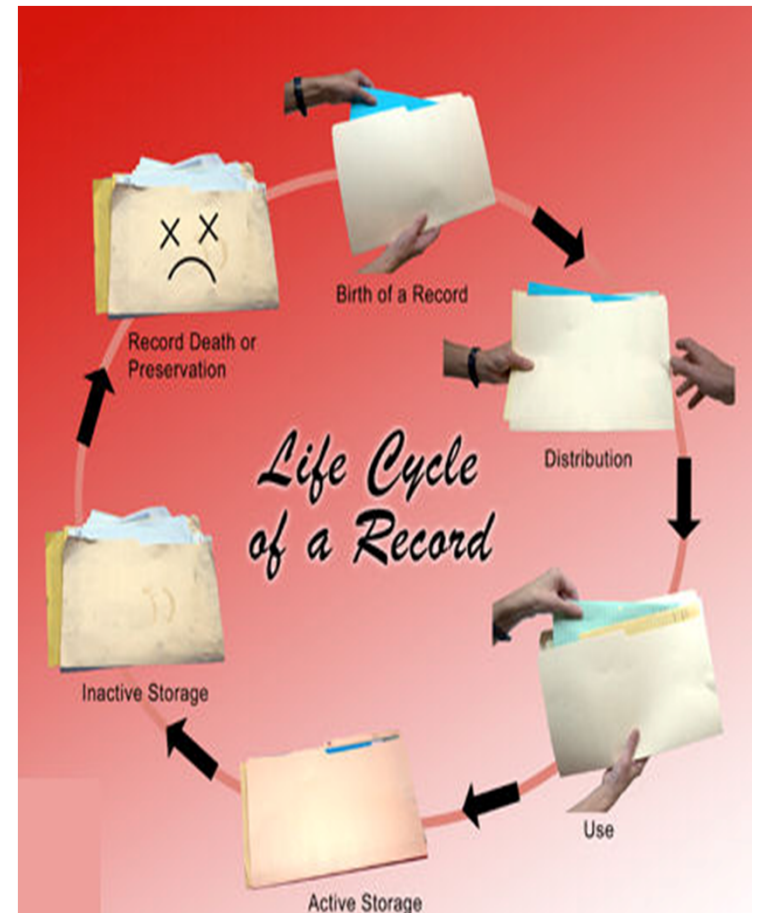
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# *Records Management; Life Cycle, Records Continuum Model and Digital Content Management*

- records have increased to an incomparable level to those created in the previous centuries
- more difficult to access the complicated masses of information than it was in the past
- The ever-diversifying sources of information and documentary structures render the problems equally complicated (*Runardotter, 2007, p.3*).



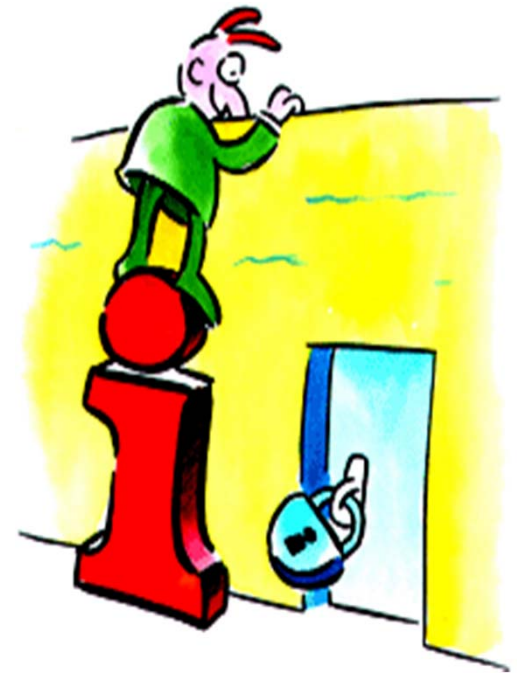
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# *Records Management; Life Cycle, Records Continuum Model and Digital Content Management*

- The major problems experienced in the management of information sources in the digital environment;
  - to ensure the continued existence of the digital information,
  - to render it accessible even though the related technology becomes obsolete,
  - to ensure the authenticity and reliability of the content and scope of information (*Runardotter, 2007; Ruusalepp, 2005*).



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# *Records Management; Life Cycle, Records Continuum Model and Digital Content Management*

- The digital content increasingly converges the enterprise information, information systems and records management applications, which fall under different disciplines of business in printed format.
- Being a part of the studies carried out for information systems, the issue of enterprise content management also needs to be addressed together with its administrative, financial, legal and social aspects (*Lavoie and Dempsey, 2004*).



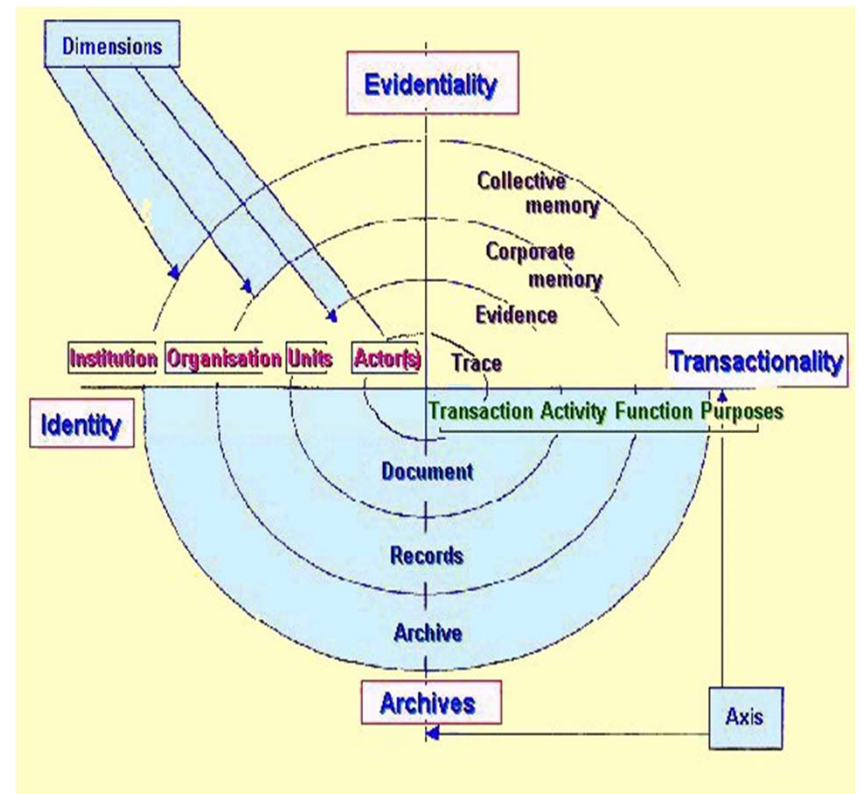
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# *Records Management; Life Cycle, Records Continuum Model and Digital Content Management*

- The management and preservation of information and records in digital systems have an influence on traditional approaches to various extents.
- For example, the concept of “life cycle”, forming the basis for records management approaches, has started to be addressed together with the records continuum approach.
- Within this context, digital content management becomes an important component of records management.



# *Records Management; Life Cycle, Records Continuum Model and Digital Content Management*

The traditional life cycle approach defines the record procedures linearly within the process of creation, editing and disposition, and accordingly, digital records might be identified simultaneously in different environments and under different conditions (*McKemmish, 2001*).

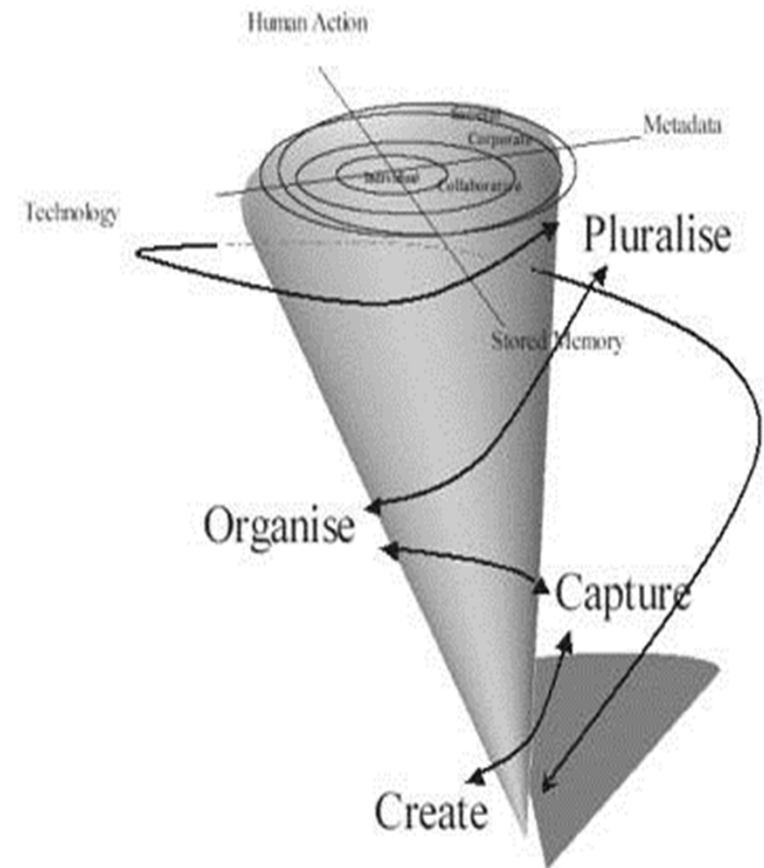


Diagram © Larry Stillman 2004



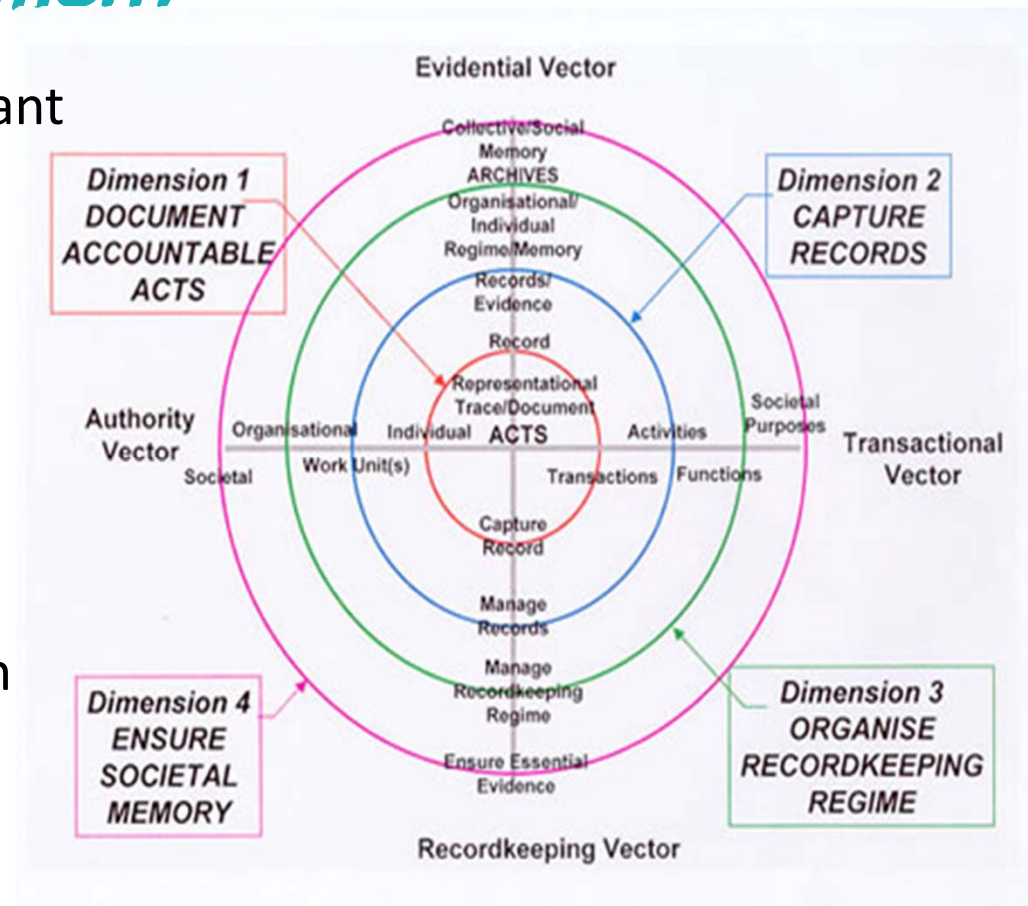
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# Records Management; Life Cycle, Records Continuum Model and Digital Content Management

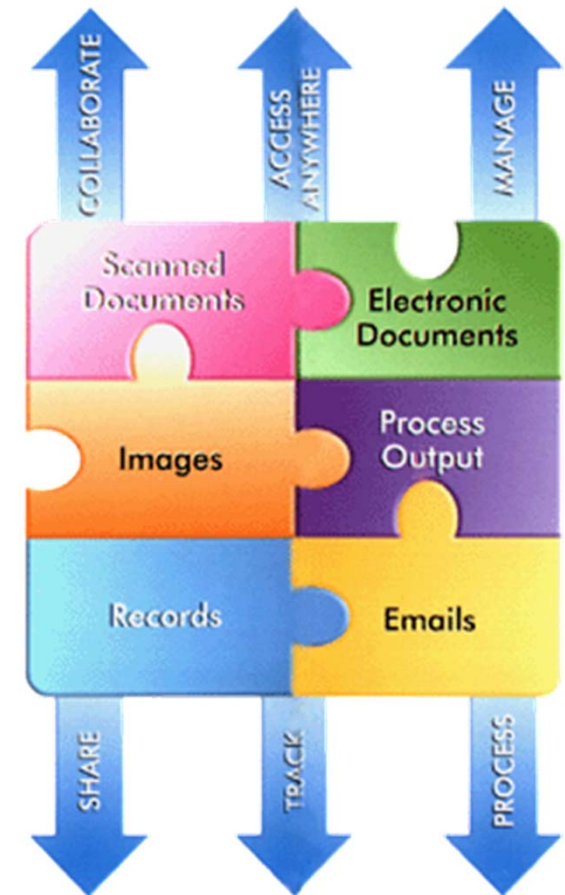
- The records are in a constant state of “being”.
- The information system experts and the administrators of records and archives, defined by individual and separated tasks according to the life cycle approach, are described as nested within the recordkeeping system under the new circumstances (Reed, 2000).





# *Records Management; Life Cycle, Records Continuum Model and Digital Content Management*

- One record concept is acknowledged within the context of information systems, and records and archive management.
- The quality of the records is defined by logical, rather than physical characteristics.
- Enterprise social networks and business processes are integrated with recordkeeping systems.
- The experts of records and archive management are responsible for the organization of the enterprise information (*Upward, 1998; Runardotter, 2007, p.73*).



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# *The Emergence of Enterprise Content Management as a New Discipline*

- From past to present, as the indispensable components of social life, enterprises have had the need for information and records systems to perform their services and to ensure their continuum at various levels.
- Information systems related to administrative and financial affairs, and the systems for the management of personnel affairs and customer relations, in-house and external correspondence, communication, records and archives might be considered in this context.



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# *The Emergence of Enterprise Content Management as a New Discipline*

- As of the mid-1990s, however, they resorted substantially to electronic systems for their activities with informative content.
- Instant messaging, scheduling, online meeting, content sharing, group management, records management, information management, application sharing, whiteboarding and business process management, which include enterprise information content, are considered in this context.



# *The Emergence of Enterprise Content Management as a New Discipline*

- The simplest and the most flexible solution supporting cooperative work has been the e-mail systems.
- In 1990s, Lotus developed its now renowned pioneering groupware e mail application '**Lotus Notes**', which has since been improved and plenty of similar applications have been developed.



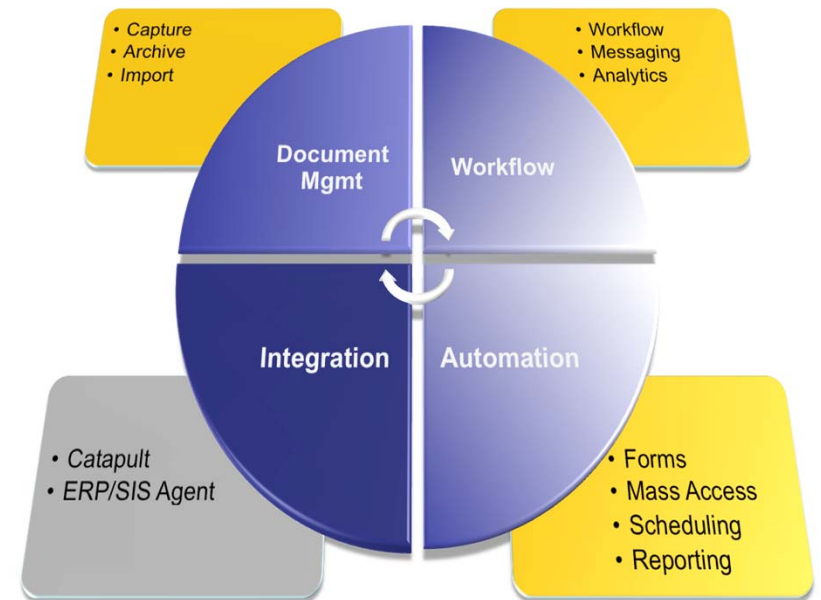
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# *The Emergence of Enterprise Content Management as a New Discipline*

- The groupware has made important contributions to the development of the infrastructure for enterprise information and communication technologies.
- Late 1980s and early 1990s have been marked by fierce discussions within the institutional framework on such concepts as the workflow management software, redefinition of the business processes of the enterprises, automation, change management and benchmarking (*Cimtech Ltd, 2009, pp.10-11; Waldron, 2004*).



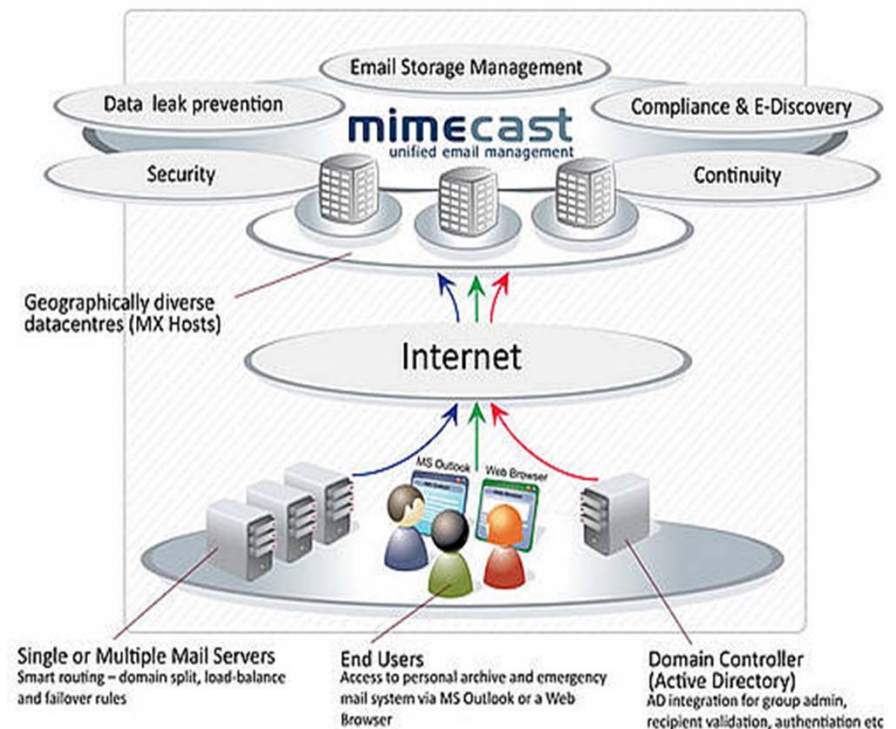
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# *The Emergence of Enterprise Content Management as a New Discipline*

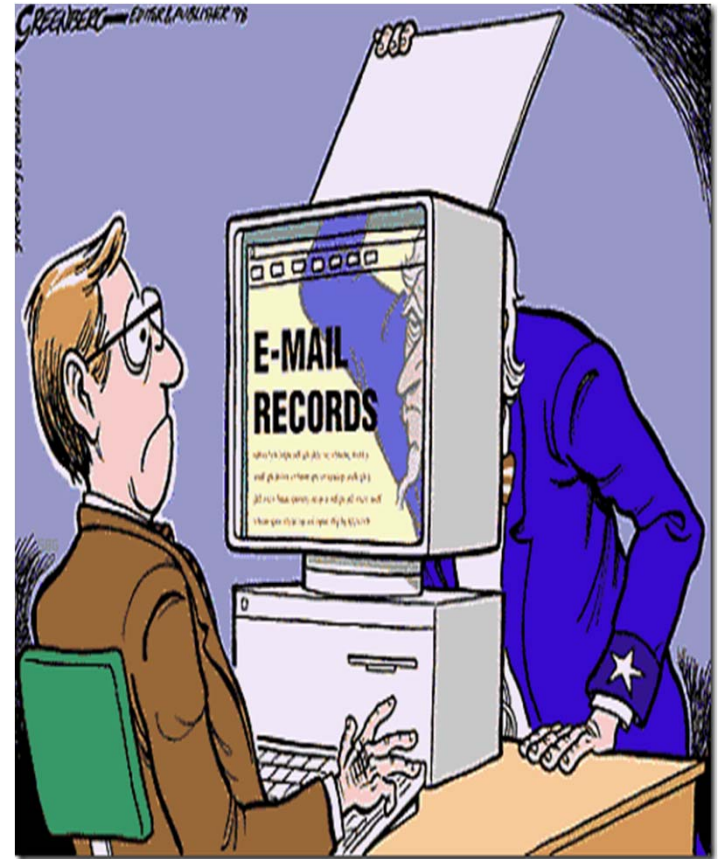
- With the influence of the technological developments, new fields have emerged along with the fields of records and records management within the scope of enterprise content management.
- E-mail management has been one of these new fields. Enterprises started to communicate officially via e-mail; regulations and policies for vesting the enterprise e-mails with the quality of a record have been introduced.





# *The Emergence of Enterprise Content Management as a New Discipline*

- Particularly in recent years, important studies have been carried out for developing policies that designate e-mail applications.
- The regulations on e-mails introduced in many states of the USA and in certain regions of the UK might be cited as an example (*New South Wales State Records, 1998, Entlich, 2006*).



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# *The Emergence of Enterprise Content Management as a New Discipline*

- In addition, many publications stating that e-mails constitute official records have appeared in recent years (*Wilkins, 2008; New South Wales State Records, 1998; Murdoch University, 2005; Newcastle University, 2010*).
- In this respect, the introduction of policies and regulations on e-mail management, notably in the USA, and in many other countries (Czech Republic, Denmark, etc.) from the late 1990s onwards is considered to be a significant development in terms of enterprise content management (*GFi, 2009a, GFi, 2009b, GFi, 2009c*).



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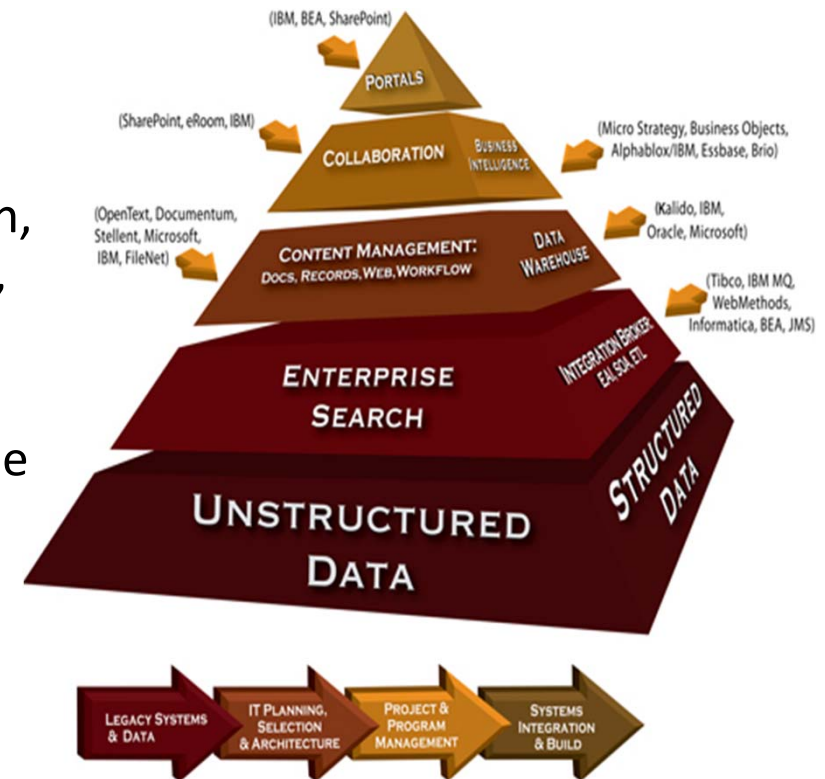
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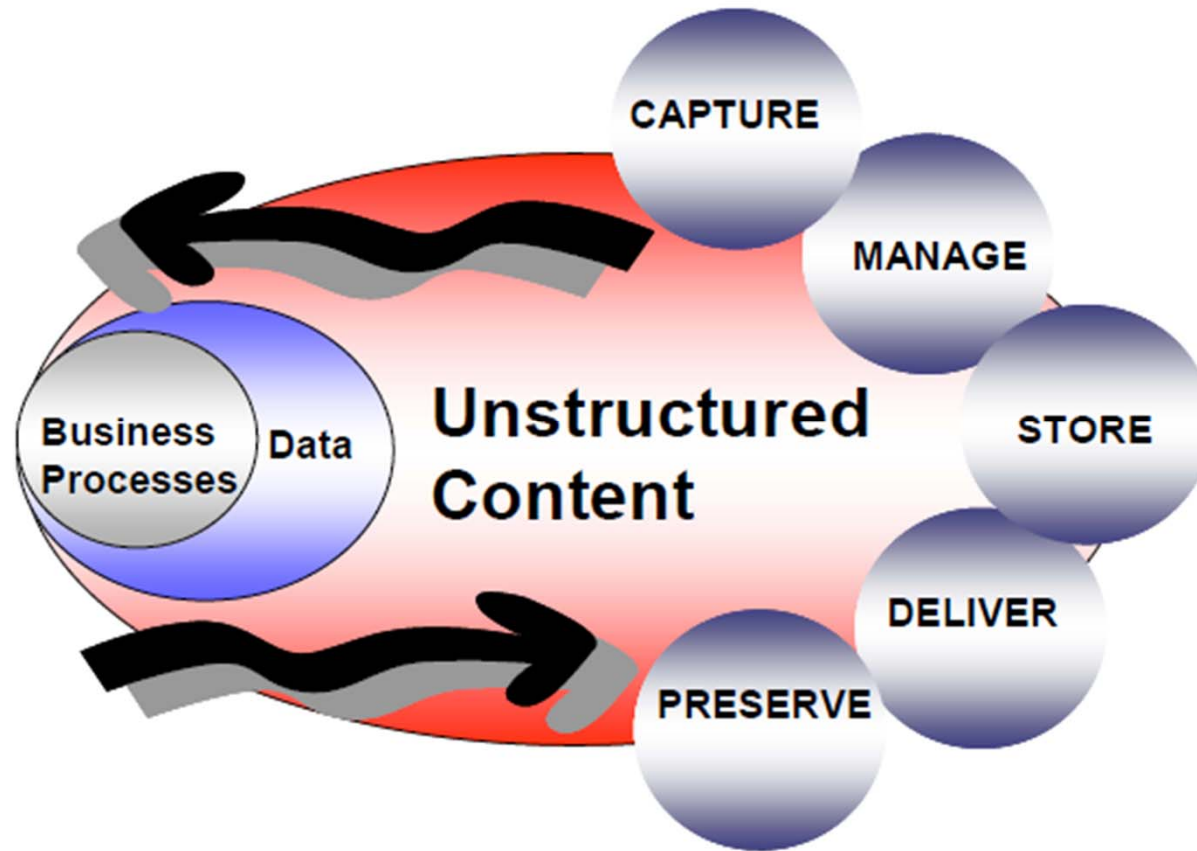


# The Scope and Components of Enterprise Content Management (ECM)

- ECM defines the solutions for the management of:
  - structured,
  - semi-structured,
  - unstructured enterprise information,
  - source codes embedded in content,
- and the components of metadata for publishing, storing, distributing and using the existing content for enterprise purposes.
- The concept has developed with pioneering efforts exerted on in-house information systems and web content management (*Päivärinta, 2005, p.1*).



# *The Scope and Components of Enterprise Content Management (ECM)*



*(Kampfmeier, 2006)*



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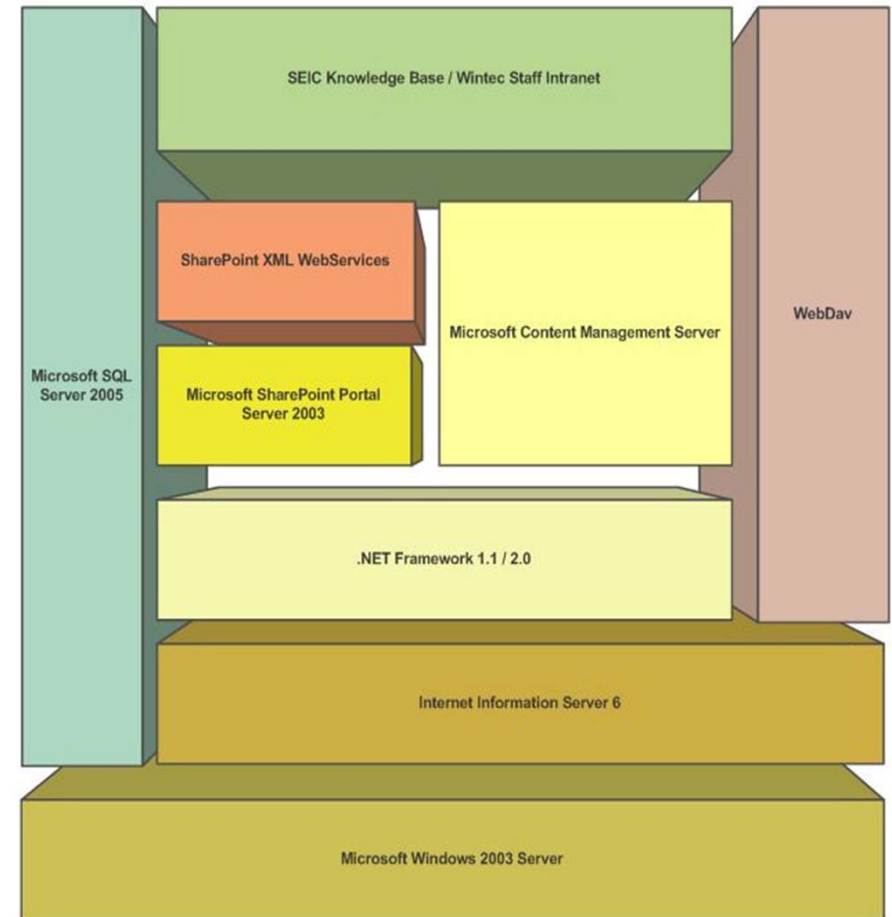
# *The Scope and Components of Enterprise Content Management (ECM)*

- ECM;  
incorporation of the technologies for capturing, managing, storing, preserving and delivering the documents or content related to organizational processes.
- Today, approaches and solutions go beyond “web content management” and evolve into the management of the convergence of all front-end applications and tools with the back-end records/document management systems and databases



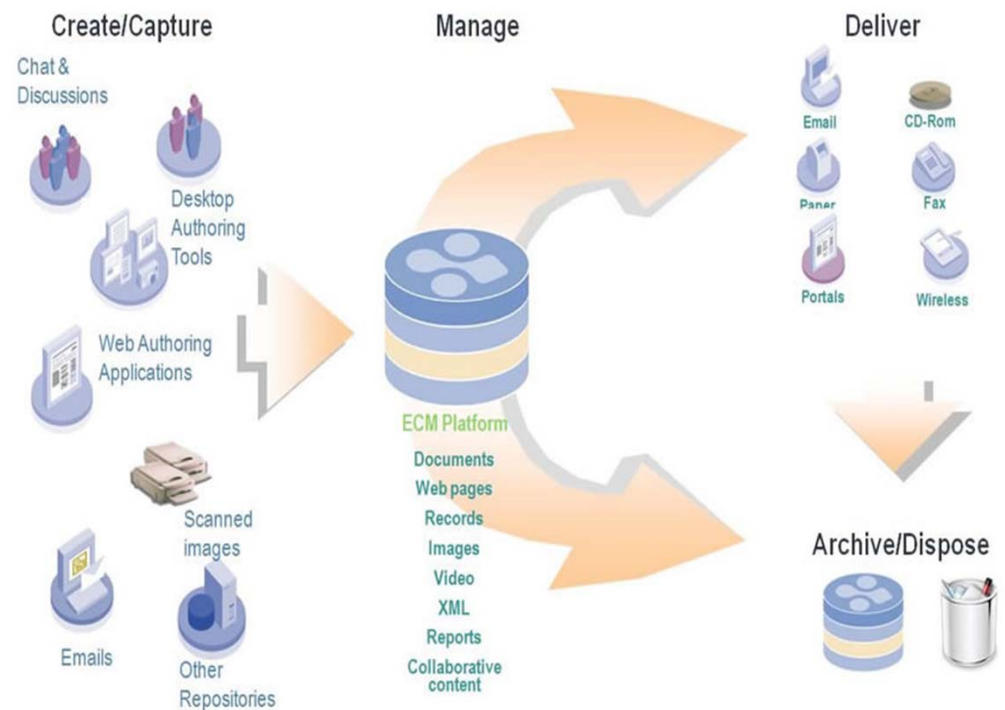
# *The Scope and Components of Enterprise Content Management (ECM)*

- The development of content configuration and exchange standards, particularly of XML, and,
- The technological approaches introduced by the integration of webpages, databases, applications and multiple access tools have facilitated convergence on the organizational scale (*Morrison, Morrison & Keys, 2002, p.81*).



# The Scope and Components of Enterprise Content Management (ECM)

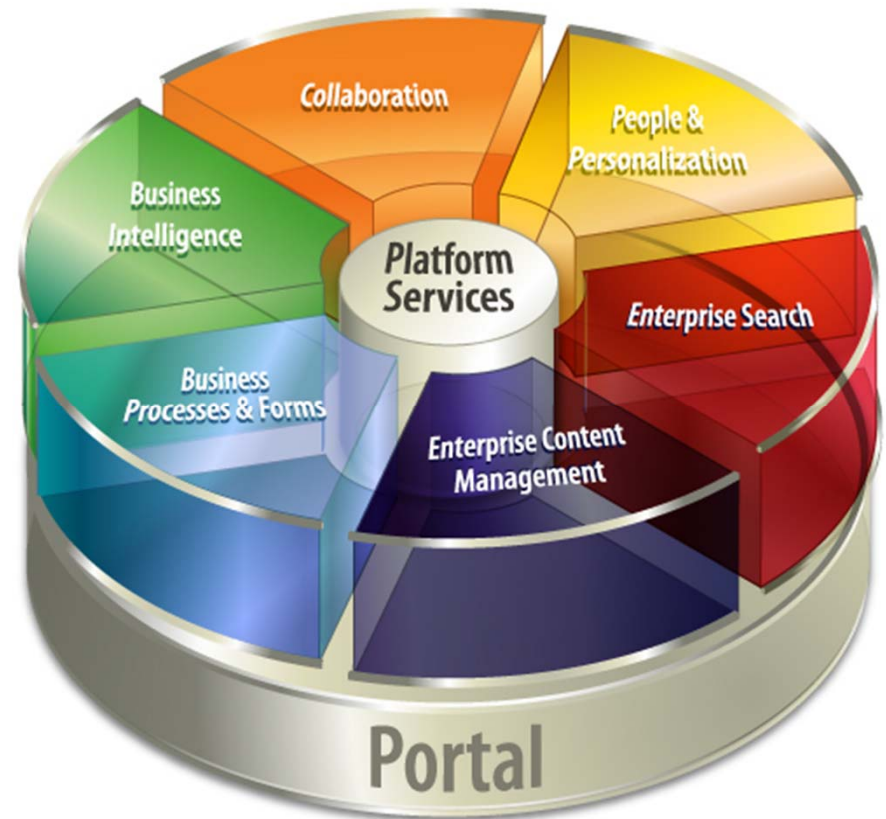
- The concept of ECM has increasingly gone beyond technological solutions and evolved in such a manner to contain the strategies, tools, processes and skills that are required for the enterprises to manage their information assets in the life cycle (*Smith & McKeen, 2003, p.647*).





# *The Scope and Components of Enterprise Content Management (ECM)*

- Content management is based on the integration of the information on how to manage a given content with its existing types and structures as long as necessary (*Päivärinta & Munkvold, 2005, p.1*).
- Effective content management requires the provision of necessary data from heterogeneous internal and external sources in different environments, conversion of the file format and creation of an integrated product.



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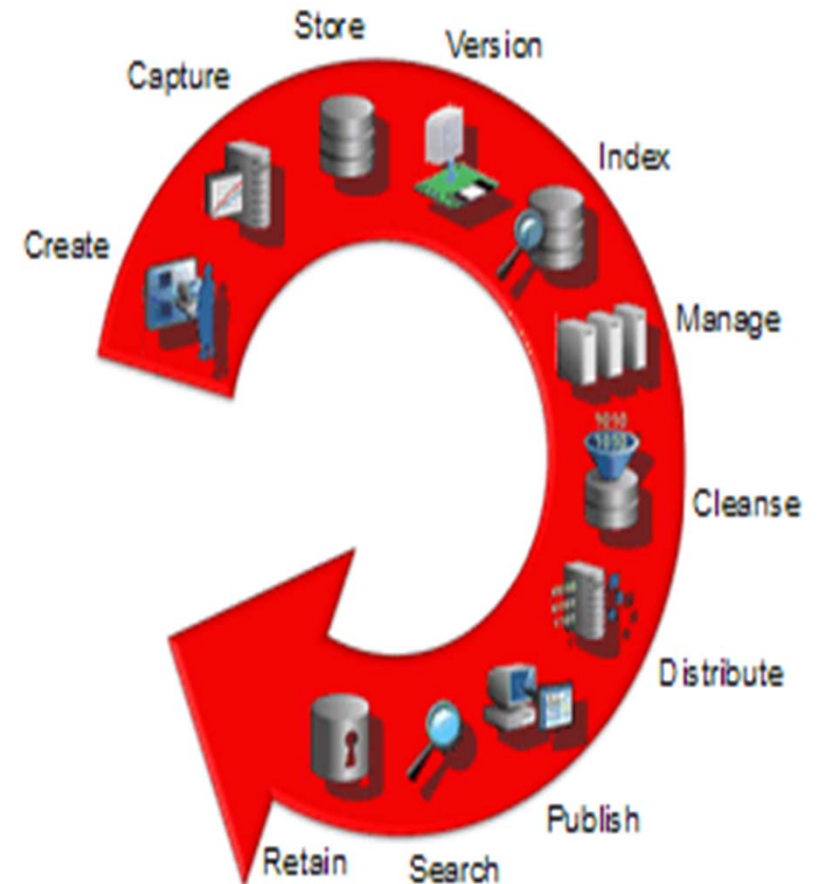
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# *The Scope and Components of Enterprise Content Management (ECM)*

- The creation of controlled storage areas, which include the definition of back-up conditions, version control and revision history management, is also within the scope of content management applications.
- The content levels should be defined at various stages for storage. Other issues to be addressed within content management are: definition of long-term storage conditions of the information sources in e-archives, disposition and disposal applications, and format change (*Päivärinta & Munkvold, 2005, p.1*).



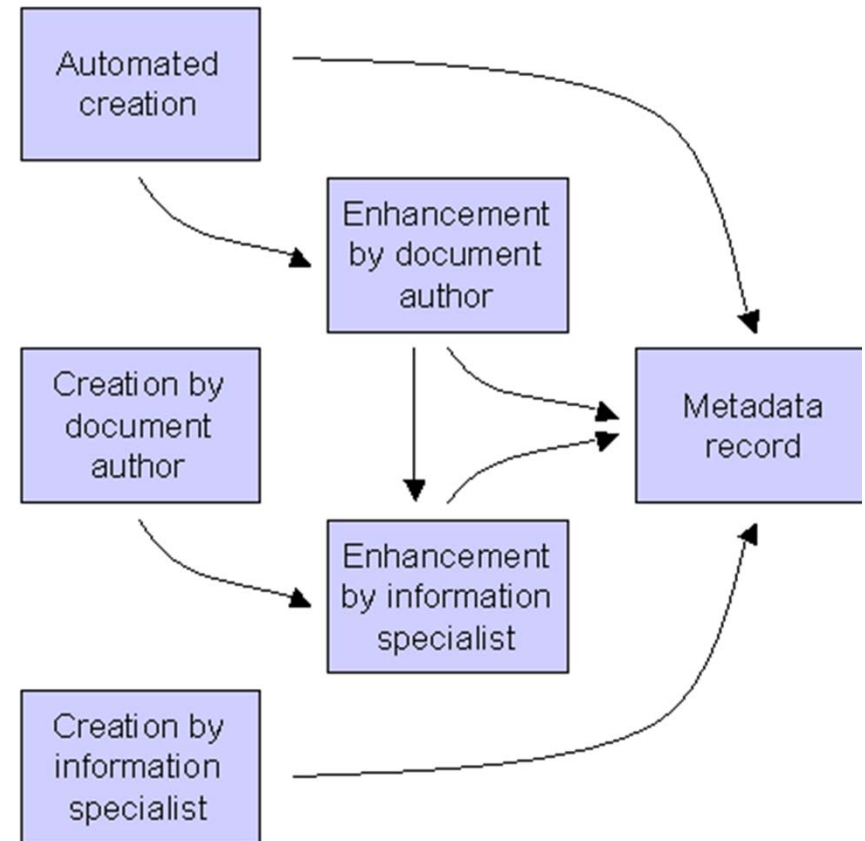
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# *The Scope and Components of Enterprise Content Management (ECM)*

- Metadata definitions of the digital content have an extremely important place in ECM applications.
- However, serious efforts should be exerted for defining the content sources, which were created in different formats, within a common metadata system.
- It is necessary to provide the suitable conditions to enable the users for accessing the content created in line with a certain logic or surfing the content (*Päivärinta & Munkvold, 2005, p.1*).



# *The Scope and Components of Enterprise Content Management (ECM)*

- The infrastructure conditions, which are particularly enabled by information technologies, are considered significant for ECM applications.
- Enterprise content has to be defined and integrated within the framework of the life cycle  
(creation/provision, storage, processing, workflow, long-term archiving of the release and heterogeneous content and the integration of the processes).

## Key Elements of Enterprise Content Management [ECM]



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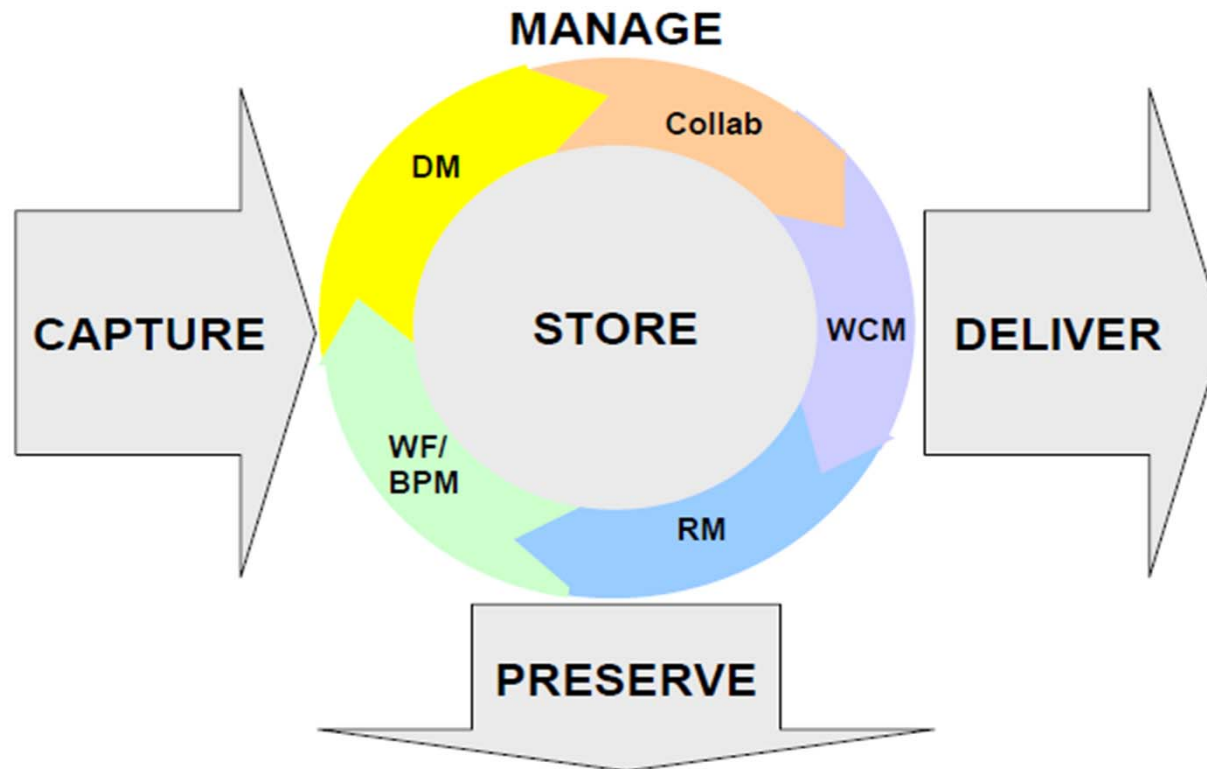
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# *The Scope and Components of Enterprise Content Management (ECM)*

- In order to manage the content, user-oriented intuitive interfaces that are integrated with “front end” content creation and scanning solutions have to be designed.
- It is necessary to inspect constantly the content providers, webs and storage tools and to confirm the sufficiency in terms of capacity requirements in the related environment, which contains large amounts of content.



# *The Scope and Components of Enterprise Content Management (ECM)*



*(Kampffmeyer, 2006)*



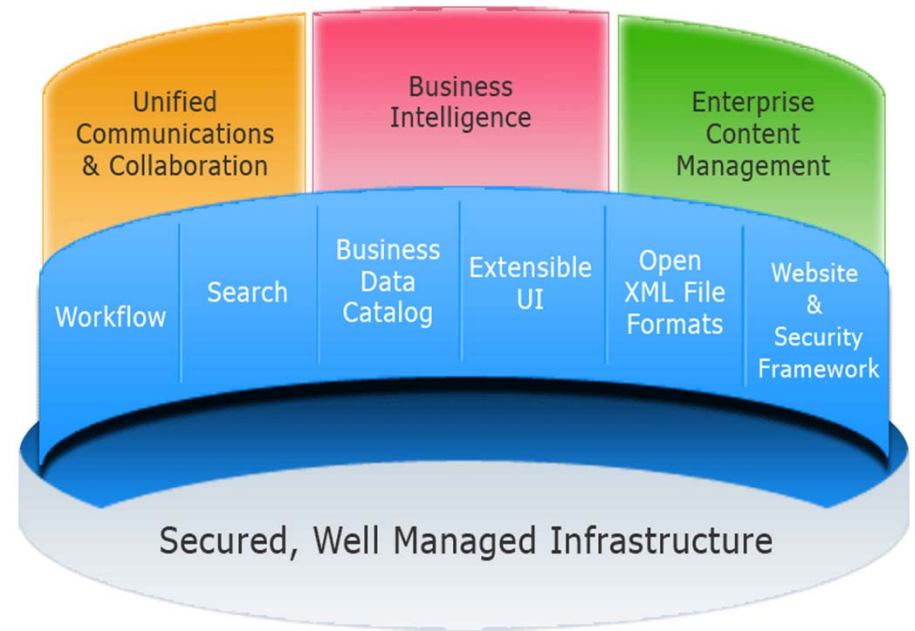
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# *Opportunities Presented by ECM and Future Expectations*

- Enterprise content management, bringing an integrated application into the organizational operation,
- incorporates the applications of
  - records/document management,
  - web content management
  - digital asset management under a single structure.



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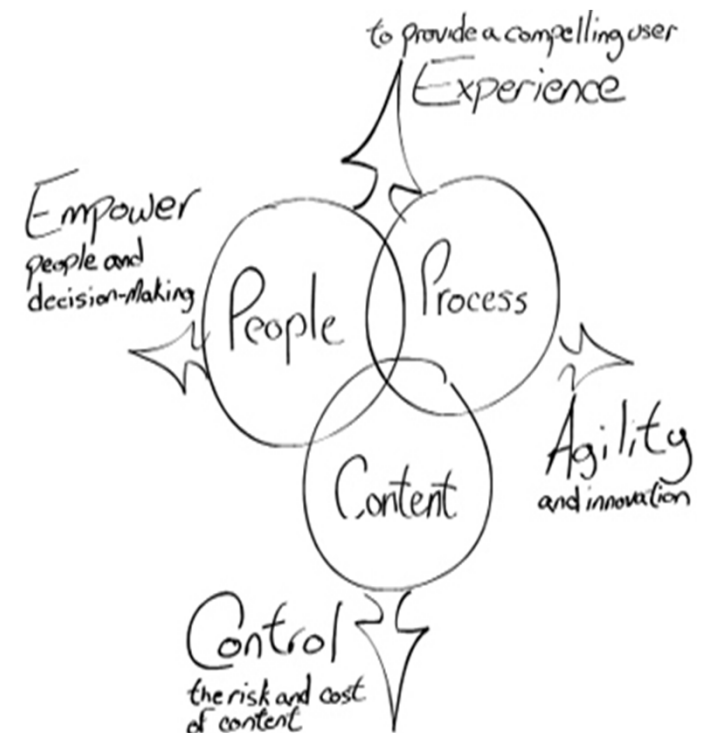
# *Opportunities Presented by ECM and Future Expectations*

- These applications are used by different user groups with different specifications in enterprises.
- These are generally the users who use the content management system as administrators, or the external users or in-house users of the enterprise content management applications.



# Benefits of ECM

- The creation, management, distribution and archiving of the information used in organizational processes via common channels.
- Starting from its creation, the information to be used in organizational operations is managed throughout its life cycle (creation, editing, distribution and archiving) within the enterprise.
- The distribution of the content created within the enterprise to the desired department or the related field and delivery of the right content to the right user are ensured.
- With respect to costs, an economical structure is provided for business processes.



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## Benefits of ECM

- Enterprise content management platforms convey the information to a given destination.
- This destination might as well be a mobile application, a printed brochure or electronic news feed. In addition, enterprise content management solutions may carry out the processes for archiving the content based on automation.
- This is an important component in terms of enabling the reusability of the content created in enterprises (*About Enterprise Content Management, its Purpose, Need & Benefits, 2010*).



# *Why enterprises tend to prefer content management applications*

- Compliance of the processes created in the enterprise with the standards
- Efficiency ensured by delivering the right information to the right user at the right time
- Provision of better customer services
- Possibility of effectively archiving the content (*About Enterprise Content Management, its Purpose, Need & Benefits.,2010*).



# *Why enterprises tend to prefer content management applications ?*

- There are many enterprise content management systems and that certain enterprises are taking initiatives for creating content management systems within their own structures.
- These enterprises are generally aiming at facilitating the processes.
- The principal focal point of enterprise content management systems is to enable the provision, storage and release of the digital records for organizational use, and along with these applications, the management of the digital records from their creation until their disposition.



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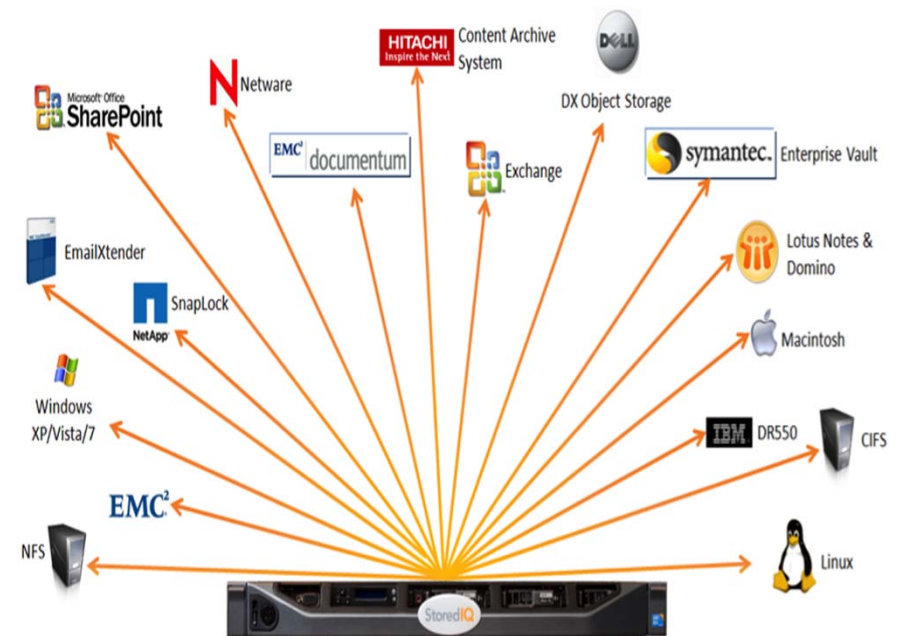
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# Why enterprises tend to prefer content management applications ?

- It has been reported that the market of this field and the organizations working on enterprise content management has reached up to a value of 2.3 billion USD for software and 7 billion USD for services in 2007,
- and that the increase of value from 2006 to late 2007 is 15%. It is also stated that, 60% of 2000 enterprises shall be engaged in standardization of enterprise content management, according to the estimations of late 2006 (*About Enterprise Content Management, its Purpose, Need & Benefits, 2010*).



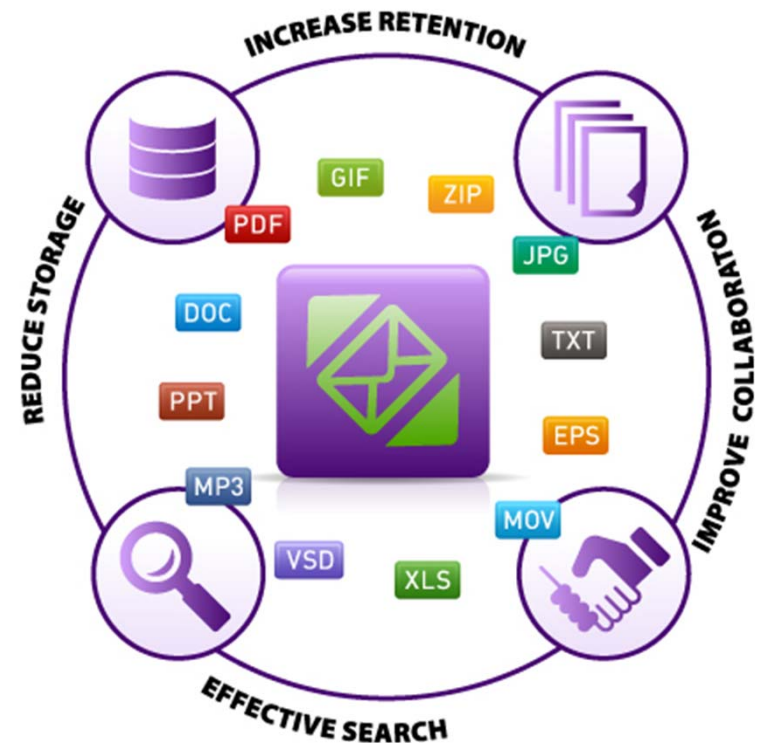
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# Conclusions

- The records, which are created as a part of the business process management and that are used as enterprise information sources, as well as the systems designed for their organization, have recently experienced a swift evolution.
- This evolution has led to the transition from printed into electronic environments, yet more importantly to the emergence of new approaches and the convergence of different information systems.



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## Conclusions

- One of the main reasons for the mentioned conditions is digitalization.

Along with the swiftly increasing amount of the content that is already born digital (*Tonta, 2009, p.757*), digitalization is listed among the priorities on the agenda of many enterprises.

- The digitalization, definition and management of the content, which needs to be digitalized within the organizational framework and that is traditionally addressed within the scope of records management, necessitate multi-perspective approaches.



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# Conclusions

- Along with new opportunities, the changing conditions have provided the development of many researches and projects with the threats towards security, authorization, breaches of confidentiality and long-term preservation, and the need for coordinated applications at every level have led to the creation of standards.
- In spite of the problems encountered there in, the digital environment has a highly powerful attraction. Nevertheless, it is necessary to select the content to be digitalized, to determine the metadata defining areas, and to define other conditions designating the activity within the system.



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## *Conclusions*

- Another important factor is to decide on the environment in which the information is to be presented digitally.
- The limited capacity of the structured formats, which might be considered the priority preference at first glance, brings more hybrid solutions to the fore.



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## Conclusions

- One of the key ECM drivers is the requirement for different knowledge and skills for the creation, provision, release and disposition of the information in new environments.
- The scope of ECM applications encompasses the design, management, security and continuity of the systems, which contain customer, personnel, administrative and financial records related to different units of the enterprise and other sources of information and records, web content and e-mails, and the systems enabling the execution of the processes falling into the expertise of the individuals in the same platform from different points.



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