Document Management

The correct handling of documents within a project or company is an essential factor that can strongly influence work efficiency.

When dealing with paper documents, several disadvantages arise, whereby especially the clarity and search speed suffers greatly, following disadvantages:

- Losing the overview of documents
- Long search times for the right document
- High transport, storage and search times/expenses
- No simultaneous processing possible -> copies -> possible inconsistency
- Often only available once -> difficult access in decentralised structures/groups
- Loss of know-how in case of staff turnover

To counteract these disadvantages, it is desirable to implement document management. Document management deals with the organised archiving of documents to shorten throughput times/process times and to be able to work more efficiently.

To realise this, document management must not only archive documents, but also have a clear system for finding files quickly. Furthermore, it should be possible to …

- create
- digitalise
- attribute
- search
- send
- archive

… documents.

Especially in large companies with several locations, this part of resource management is a competitive factor.

To efficiently implement document management, as described above, document management systems (DMS) are used, which map the document live cycle of a company.

This document live cycle describes the individual steps that a document goes through in its "lifetime":

- Elect. creation / import of physical document (scan)
- Description of the document content
- Temporary storage
- Long-term archiving
- Targeted search (retrieval)
- Editing
- Output (printout, presentation)
- Distribution / passing on to others
- Defined deletion

In general, the DMS aims to optimise the organisation of company processes in connection with documents and to ensure that every document is in the right place at the right time for the right user. To achieve this in the most efficient way, it requires the cooperation of organisation, information technology and employees within the company.

Within a DMS, the following distinctions are made for documents

Document -> content-related objects (texts, tables, media, ...)

- **Physical document** -> document in paper form (convertible by scanning)
- **Digital document** -> files on the computer
    - **NCI document** (Non-Coded Information) -> scans -> saved only as pixel/vector graphics (conversion by OCR (Optical Character Recognition) possible)
      Problem -> Analysis of content
    - **CI document** (Coded-Information) -> digitally created files (.docx, .txt, ...)
      Problem -> Different file formats -> Software

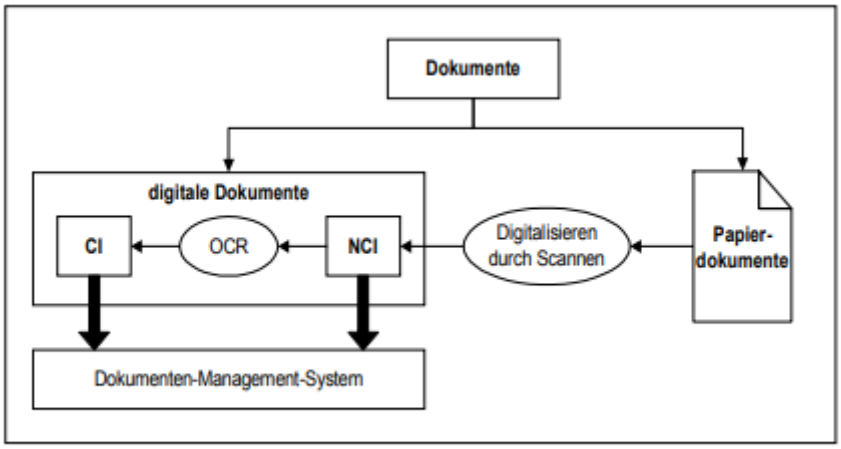

Abb. 1: Dokumentenarten[26]

The attribution and indexing of documents are essential for DMS.

Only with the help of meaningful file names, search characteristics (author, title, appearance, ...) and attributes (keywords) is it possible to search for and, above all, find documents permanently.

It is particularly important to assign attributes to NCI documents, since unlike CI documents, it is not possible to carry out an automatic full-text indexing of the content.

This metadata for the documents is stored in a separate database.

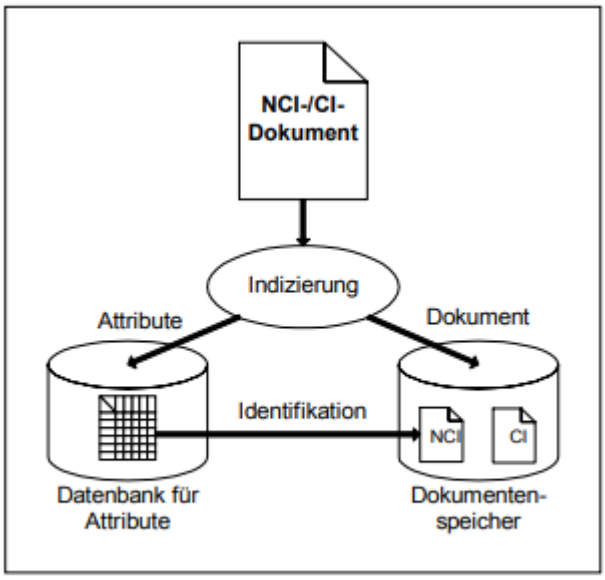

Abb. 2: Indizierung von Dokumenten[34]

For DM systems, a differentiation can be made between the following classifications:

- **Archive system**
  - Long-term, large-volume storage of documents
  - Identification via only a few attributes

- **Retrieval system**
  - Fast retrieval of documents
  - Information search in the foreground

- **Workflow system**
  - Support for the processing of workflows
  - Integrated emails, routing, editors, ...

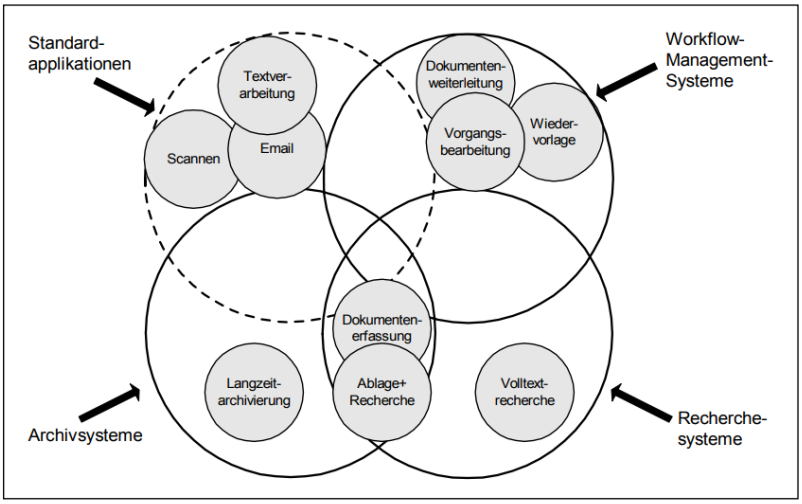

Abb. 3: Klassifikation von DMS-Anwendungsgebieten, abgeleitet aus verschiedenen Anwendungssystemen[46]

Purposeful functional scope of a DMS:

- Capture and preparation of documents in a suitable electronic form.
- Indexing the documents to be archived ("document capture")
- Storing, saving and managing documents
- Possibility of searching for documents
- Suitable document output
- Suitable forwarding of documents
- Organisation of documents (storage structure, user access permissions)

Targets of a DMS:

- Cost reduction
- Optimisation of business processes / reduction of document processing times
- Quality improvement in the creation / archiving / availability of documents

Disadvantages:

- Time-consuming capture of paper documents
- Time required for document indexing
- High investment volume (IT infrastructure)
- Limited mobility
- Security

ITEM D:

CMS - Content Management System -> Collaborative creation, editing and organisation of content which is presented on websites.

- Management and target group-oriented presentation of text and multimedia content.
- Creation and editing of content through online text processing modules
- User permissions for saving changes

⇨ Wikipedia is clearly a CMS, as the focus here is on presenting information in the browser as a website, rather than organising documents.