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Prezentace předmětu:
INFORMATION MANAGEMENT

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INFORMATION MANAGEMENT

8. ACQUISITION OF INFORMATION, SEARCHING, AND MANAGEMENT OF INFORMATION

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Introduction

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There are currently very diverse sources of information. Historically, libraries and archives are the most well-known source of information. Furthermore, museums and galleries are also available.

From modern sources, attention will be paid to information centers and centers, databases, special institutions and electronic information sources.

There are a number of methods, techniques, procedures, interesting information resources, services and applications for information retrieval. A web search will also mention the usability of the site. The final part of the chapter is devoted to the issue of information management.

Goals of the chapter

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- ✓ Learn how to get information from a variety of sources
- ✓ Learn how to effectively search for information
- ✓ Know how to manage information

Acquisition of Information

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The possibilities of obtaining information are nowadays facilitated and speeded up by the information technology, compared to the past, when the acquisition of information required much more effort and often costs. It is important to obtain information that is useful and usable. Leaders should be able to effectively use the information and create a system for their processing. The resources for the acquisition can be divided into external and internal resources.

External information retrieval includes a variety of external resources, such as public registers, databases, printed matters, professional periodicals, television, professional seminars and conferences, training, promotional materials and, of course, the Internet as well. The information obtained may be of a different nature, such as general, technical, economic, legal, etc.

Acquisition of Information

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In the case of internal resources, these are, in particular, internal documents that have been created by self-employed workers (business consultants, designers, economists, personnel managers, etc.) and must be archived and provided to co-workers.

They have different forms - news, reports, reports, etc. Some information is only internal in nature and subject to confidentiality, other information, on the contrary, is mandatory and in the prescribed form.

It can be company accounting, audit, work safety, statistical reports for the state statistical office, technical and hygienic certificates of goods, etc.

Searching for information

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The search for information is very extensive. There are a number of methods, techniques, techniques, interesting information resources, information services, and applications. At the beginning of each search, there is always a so-called information need or a lack of information to solve a problem.

If you formulate your need, it becomes an information requirement. When it becomes a subject of the search, it is called a search query, and once you have expressed it in a particular query language, we are talking about a search query.

The search is the result of a search, which is a list of bibliographic records, factual information or full texts of documents that correspond to the information required. You usually search by yourself, but you can also order it.

Searching for information

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According to Vaněk (2013), a search is made to find out if the text you are typing contains the words you are looking for, we will call them samples. If the entered text contains the samples you are looking for, we are also interested in the information about where the sample contains the sample.

The subject catalog, according to Vaněk (2013), is a set of manual links to various sources. This creates a tree structure that in its own way creates something like a content or index of an information resource.

Links are clearly categorized into thematically relevant categories, enabling fast, efficient, and accurate searches.

Searching for information

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Search options on the Internet are considerable. Information can be found not only in text but also in pictures, videos, maps, etc. In order to gain access to public or non-public information sources, we have a variety of search tools. The search tools include:

- subject catalogs,
- search engines,
- metaverse,
- virtual libraries.

Searching for information

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For effective search, a wide range of Internet search engines are currently being used. In addition to the world's most widely used Google search engine, there are, of course, others such as Bing, Yahoo, Altavista. In the Czech Republic, for example, List, Jyxo etc.

Google has an absolutely dominant position and leads sovereignly among online search engines in almost all countries of the world. Among countries where there is strong local competitions are eg Russia (where Yandex is first), China (Baidu), Japan (Yahoo) and South Korea (Naver) and Czechia (Seznam.cz).

Search operators are characters with special meaning for full-text search engines. Most search engines apply a set of general operators to specify the conditions that the search query (content) should meet.

Usable web

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Generally, a usable site is a site that allows its users to find the required information, read the news, register, order goods, etc.

Sites and sites that do not meet these basic usability requirements then lose their visitors because users are leaving elsewhere to avoid having to waste time with the unnecessarily complicated search for information and not to look like "idiots" who can not find the information they need.

According to the website jakpsatweb, the good usability of the website is characterized by the fact that the users succeed on the site to do what they want. These activities will then be done in a reasonable time and without a great deal of thought, and they will lead them without mistakes and fundamental disappointments. It can be said that quality and much-visited sites have been successful because of their usability.

Usable web

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Among the basic usability keys are the following:

- **simplicity,**
- **standard control that is common on most sites,**
- **not to force users to think unnecessarily.**

In general, there are several usability ways that can specify and also determine the importance of user needs based on actual data and observations. According to many surveys, many sites are not usable at the ideal level, and users often find this quickly and leave these sites. In today's hurried time, it is necessary to expect that the average user's mind when visiting a particular site is such that the site is likely to be disappointed.

Usable web

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Most users invest very little time when they say they often spend 10-15 seconds exploring a new site hoping to be one of the few good ones. If the site has an unusual or complicated impression, they leave the site in a few mouse clicks.

A general conclusion, based on many findings from many usability studies, is that websites work best if they stick to the habits that users know from other sites.

The basic assumption is that the more websites do certain things in a certain way, the more they usually increase usability by following these habits.

This in practice works very well, as users know intuitively how these sites work.

Usable web

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If we want to evaluate whether the site is usable for searching information, then you can test the web based on the following steps:

1) Analysis of the target groups of the selected part of the pages, their needs
2) Select testers
3) Create a test scenario
4) The test itself (test description/record)
5) Analysis of test results and recommendations

Usable web

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Analysis of the target groups of the selected part of the site and its needs

Depending on the site you can define the basic target groups of the selected part of the site and its needs. This is a basic requirement for evaluating the usability of the site.

Selection of testers

You should not select testers who could not generally behave as real users of the selected part of the site. For certain sites, some specific skills and expertise are required directly from the tester, which are the target groups of the selected part of the site

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Create test scenarios

The script gives the tester a certain context ("You're ...", "You want to do ..") and provides information that he should know but does not know (password to the test account, the address of the test page, etc.)

Nielsen (2005) states that some people think that usability is very expensive and complex, and usability tests are for large and exceptional websites with a huge budget.

But as this expert says, this is not true because complicated usability tests are resource waste and the best results stem from usability testing of up to 5 users when it is realistic to perform as many small tests as you can afford.

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The test itself (test description/record)

The test itself must be documented in the form of a test description or record. The test record can be effectively documented on a video camera that accurately documents how the tester progressed while browsing the site and searching for the information required based on defined scenarios. You can also record a recording on the computer screen, or you can at least get an audio recording or a classic record of how to work on the paper.

Analysis of test results and recommendations

Feedback based on test results is important. This feedback should provide an overall assessment of the usability of the site and recommendations for improvement if any errors or shortcomings have been found.

Managing information

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Managing information is very important because information is not enough to gain, but it needs to be further processed, categorized, updated and often archived.

Nowadays, the information needed to run the business is growing and growing. Human abilities to process all information are limited both because of capacity and time-consuming. It is, therefore, necessary to use the latest technologies and systems.

Informative management is tasked with standardizing procedures and processes for handling this information.

Managing information

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The information management system is designed to address the following issues:

- acquisition and processing,
- availability,
- categorization, indexing,
- access rights,
- document circulation,
- updates,
- archiving.

From the point of view of using information management systems, we will now focus on content management systems and document management systems.

Content management systems

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CMS generates documents (articles) through web-based rendering using a simple online WYSIWYG editor or a simple text formatting system. HTML knowledge for content creation is not necessary.

CMS is the software that manages documents, most often web content. Nowadays, as a CMS, web applications are commonly understood. Sometimes the CMS is also a synonymous editorial or publishing system.

Using a high-quality content management system, it is, therefore, possible to easily and effectively manage and change the content of the website. Beyond basic text publishing on the web, it's possible to create photo galleries, manage discussions, or run an online store with current content management systems. Some systems have integrated the above functionality already after the basic installation, and other editing systems can be installed using available extensions (plugins or extension).

Content management systems

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In terms of architecture, the following components are distinguished:

- **CMS core,**
- **databases,**
- **public section - Frontend,**
- **administrator part - Backend**

Content management systems

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The basic functions of these systems are usually broken down by the interface to the administrator and user. The basic administrator functions are:

- creation, modification, and publication of documents (articles),
- creating and modifying content sections - multi-level sections (categories),
- creation and modification of navigation elements (manual or automatic creation of menus),
- access control for documents (administration of users and groups, access rights),
- managing discussions or comments,
- file management,

Content management systems

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- managing images or galleries,
- manage templates for the look,
- managing language settings,
- calendar functions,
- access statistics.

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The basic user functions are:

- browsing content (categories, articles),
- adding comments,
- user registration,
- taking news.

CMS is divided into four basic types of focus:

- WCM (Web CMS) - allows you to manage and organize Web content,
- TCM (Transaction CMS) - used in e-commerce,
- ICM (Integrated CMS) - for processing content in business,
- PCM (Publishing CMS) - facilitates organizing the development of publications.

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Another division of CMS is possible as follows:

- **By availability - paid, freely distributed**
- **By platform - Apache + PHP + My SQL, MS IIS + ASP / .NET + MS SQL**

Among the most well-known and most widely used CMS systems are:

- **Joomla**
- **Drupal**
- **WordPress**

Content management systems

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Other popular, yet not so popular CMS systems include:

- **Blogger,**
- **Magento,**
- **vBulletin,**
- **TYPO3,**
- **DataLife Engine,**
- **PrestaShop,**
- **Bitrix.**

Content management systems - Joomla

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Joomla is a freely distributed software for creating and managing web pages, based on the GNU / GPL license. Joomla is written in PHP and uses the MySQL database.

Joomla supports caching, site indexing, RSS, printable versions of pages, newsletters, blogs, newsgroups, polls, calendar, web server search, localization and multilingual versions.

Joomla is one of the most popular open source content management systems in the world.

Content management systems - Joomla

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The official website www.joomla.org/ presents the following examples of system used in practice:

- Business websites or portals
- Company intranets and extranets
- On-line magazines, newspapers, and publications
- E-commerce and online reservations
- Government applications
- Small Business Websites
- Nonprofit and organizational websites
- Community-based portals
- School and church websites
- Personal or family homepages

Content management systems - Joomla

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The official website of the Czech Joomlaportal community presents the following features of the system:

- Working with Joomla is very easy. No need to know HTML or CSS
- Joomla is completely in Czech and free
- Joomla is ready for mobile devices
- The Joomla Directory offers more than 7900 extensions

Content management systems - Joomla

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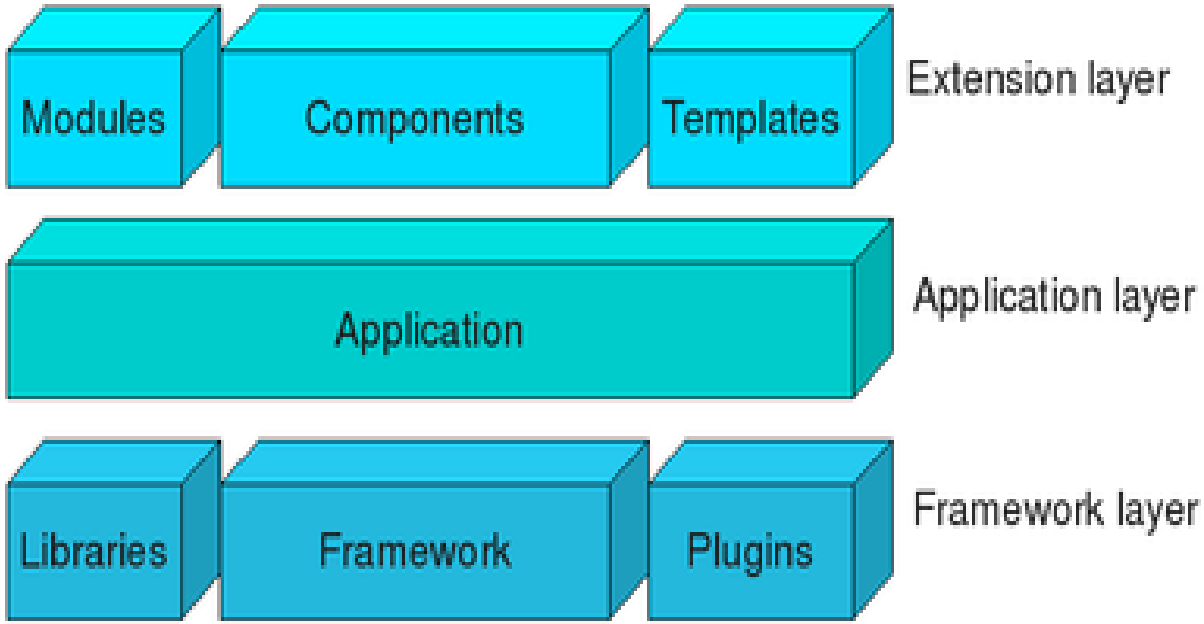
Figure 1: Joomla – architecture



Source: https://docs.joomla.org/Joomla!

Content management systems - Drupal

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Drupal is a free content management system that allows you to create Internet magazines, blogs, online stores and other complex systems. It is programmed in PHP language. Officially supported Drupal databases are MySQL and PostgreSQL relational databases, and versions 7 and SQLite.

Drupal is built in a modular way and sets forth its philosophy of code clarity and openness of the API. Easy scalability with the modules and many options it provides from Drupal makes one of the best editing systems. In addition, it is free with source codes as well. With modules, you can create an e-shop, a forum, or a corporate website.

Content management systems - Drupal

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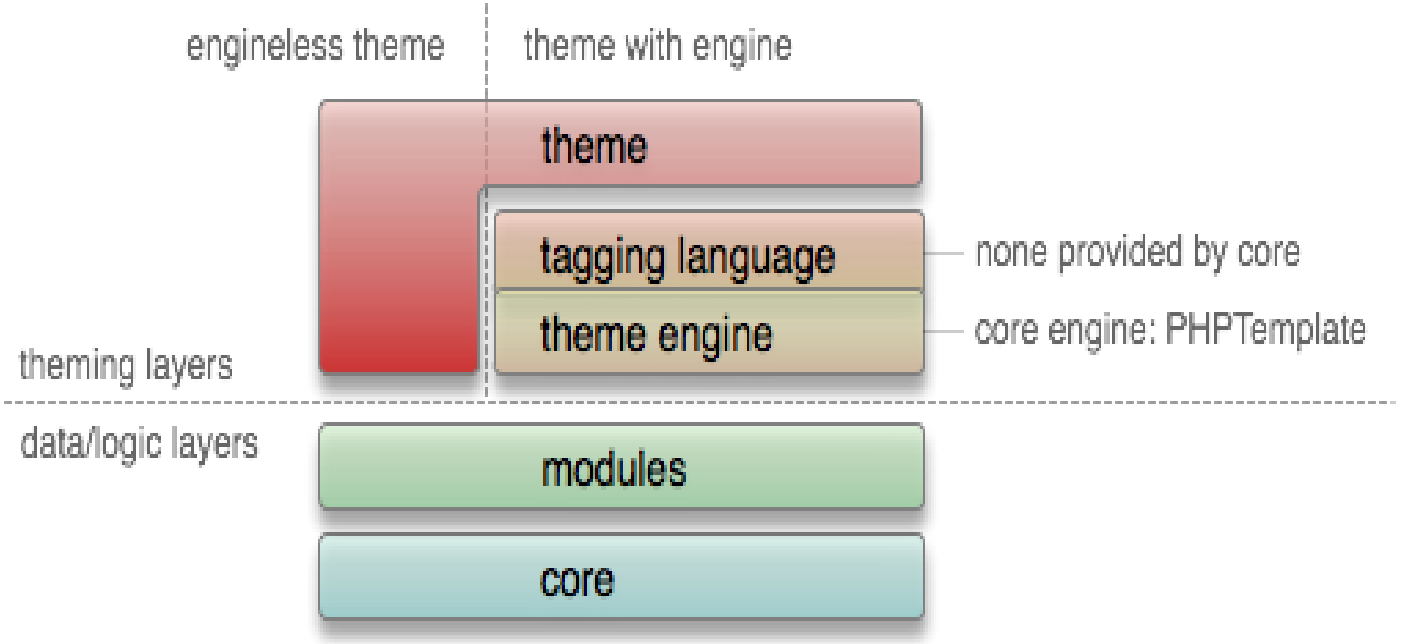
Figure 2: Drupal - architecture



Source: https://www.drupal.org

Document management system

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Document Management or Document Management System (DMS) or Electronic Document Management (EDM)) is a computer system designed to manage electronic documents and/or digitized paper documents, such as documents converted to digital by scanning.

A typical document management system solves the following issues:

- **he inclusion of documents,**
- **searching for documents,**
- **managing version of documents,**
- **access rights,**
- **archiving,**
- **workflow "flow of documents".**

Document management system

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Examples of specific document management applications:

- IS ALeX
- Alfresco
- Docker
- Rivera
- Xerox DocuShare

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