CHAPTER 1. INFORMATIONAL SOCIETY AND RESEARCH

Course:

Information Technology in Research

Science is a way of thinking much more than it is a body of knowledge.
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Informational Society and Research

1. Information within Contemporary Society

Aspects and characteristics:

- ❑ Information constitutes an essential resource for the development of human society
- ❑ Information turns out to be the main source of wellness for the companies and for the individual
- ❑ Information substantiates the managerial decision
- ❑ Information may be shared without exhaustion

1. Information within Contemporary Society

Aspects and features:

❑ Information depends on our characteristic manner of perceiving and assimilating it; and on our ability of turning it to creative use

❑ Specific features defining the quality of information:

- accuracy, integrity,

- confidentiality,

- opportuneness, availability etc.;

2. Informational Society

Aspects and characteristics:

- Information society – wherein the creation, the distribution, the dissemination and the use of information are an integral part of (informational) Economics

- Knowledge turns into a source of productiveness

- Information and Communication technology (TIC) - informatics, comunication, multimedia – constitutes the core of informational society.

Informational Society

State of art technologies:

- Digital technologies render the access, the storage and the transmission of information increasingly user-friendly and widespread;

- Multimedia telematic services combine **sound, image and text** and turn to good account all communication means (telephone, fax, television and computers)

- Late day computer network – ensure the quality of information

3. Management of Scientific Information

Advantages of managing scientific information:

➢ Rapid access to scientific information

➢ Intense debureaucratisation of the administrative processes

➢ Lowering of the project management costs

➢ Diminution of the failure risks in research

➢ Reduction of the time necessary for implementing the research outcomes

3. Management of Information

Stages in applying the steering principles of management to the process of administering and turning information to good account:

1. Planning / acquisition
2. Organization of information
3. Enhancement/utilization
4. Control

3. Management of Information

Informational portals

- Complexe Sites, providing searching/user guidance towards fields of interest, administering information to the best of efficiency

- Information, proceeding from various sources, is displayed in a unified manner

- They group several services (free e-mail account, diverse and sundry information, advertising etc.) rendering the searching process much easier and less time-consuming

3. Management of Information

- They administer and update address directories indicating the sites of interest.

- The system ensures the confidentiality of the information and guarantees the integrity of the transmitted data.

- The afferent information are being updated on a regular basis, through a specific interface.

4. Management of Scientific Information

For the doctoral students:

- They provide useful working methods and tools during starting off the research activity, aimed at reducing the time spent for work;
- They raise to the utmost the efficaciousness of the passage:

  - from the stage of the subject choice

  - to the stage of devising/writing the doctoral thesis.

Scientific research stands for:

- a complex manner of investigating reality
- a complex process of systematic search aimed at further adding late-day knowledge elements through the discovery of non-trivial facts

Scientific research is learnt through research!

Necessity for bibliographical study:

- To start off research means to set out from the already given knowledge, which leads to in-depth comprehension of the respective field
- Researchers resort to a certain jargon, which has to be acquired (specialized language)

4. Management of Scientific Information for Doctoral Studen

Working stages during bibliographical study / documentation:

- subject choice and target identification within research
- methodology planning and devising and similar approach to the working tools
- negociating access within certain structures / departments / institutions
- colecting, analysing and submitting scientific information
- drawing up written reports

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4. Management of Scientific Information for Doctoral Students

Reading accompanies research activity during all working stages !

Informational Society and Research

4. Management of Scientific Information for Doctoral Students

Stage of research subject choice

- documentation upon existing information in the field is done through subject search, field search, key words etc.

  - *You cannot state in the wake of your research what is or not of relevance!*

  - *Much reading has to be done!*

  - *Not all desired publications are available*!

4. Management of Scientific Information for Doctoral Students

WE CANNOT DO EVERYTHING !

WE HAVE TO DO THE BEST DURING THE AVAILABLE TIME !

4. Management of Scientific Information for Doctoral Students

Critical Reading of a Document begins with:

- verifying the document authenticity
  (do you trust in what is laid down on paper ?)
- critical analysis of the document title
- knowledge upon the author
- his/her mentioning information sources

4. Management of Scientific Information for Doctoral Students

There has to be followed:

- what other researchers achieved in the chosen field;
- what approaching manners they resorted to;
- what hypotheses and what arguments they brought for their confirmation/refutation;
- how they classify their information;
- how they exploit the relations among the analyzed facts / processes / data;
- the chosen manner for putting down their report/paper and your choice upon drawing up your report.

4. Management of Scientific Information for Doctoral Students

Lecture / **reading** is accompanied by the **record** / **putting down** of what is deemed to turn out of good use and of relevance :

- Ever since setting off reading, you will have to judge upon the data retrieving procedure (according to the subject, to the author, to key words etc.);

- The notes / the records, will they be kept or not ?!

4. Management of Scientific Information for Doctoral Students

Records / **notes** upon retrieved / read scientific information:

- must include numerous **details** so as not to resume many a time and consume time;

- keeps you off the accusations of **plagiarism** (use of other authors' words or ideas as if they they were your own knowledge): all sources will be put down and, during their rendering, they will be mentioned accompanied by the gratitude owed for the utilization acceptation.

4. Management of Scientific Information for Doctoral Students

- The number of records, bibliographical references, full-text articles etc. that you gather during the documentation stage becomes increasingly manifold, requiring a **system of information record arrangement.**

- There are numerous systems vouched for recording the information sources, for instance the *Harvard* Method – there are inserted the author's name and the date.

5. Recording the Information upon the Retrieved Informatics Sources

Recording modalities:

A. <u>For the books:</u>

- Author's name and first name or initial;
- Issuing Date;
- Title (underlined or in italics) and edition, if case is;
- Issuing Place;
- Name of the Publishing House.

5. Recording the Information upon the Retrieved Informatics Sources

Example:

May, Tim (2001) *Social Research: Issues, Methods and Process,* 3rd edn. Buckingham: Open University Press.

Observations:

- There is made reference to the third edition of this book; a new edition includes a significant quantity of new data and elements; a reissuing means a reproduction of the inital text in another number of copies;

- Punctuation: after "3rd edn." there may be put either full stop or coma, or a pause.

5. Recording the Information upon the Retrieved Informatics Sources

- There is recommended to resort to the bibliography drawing up guide and template, which was elaborated within your institution. (ex. Scientific Bulletin of the University);

- If there is made a quotation in the text, there is recommended to mention also the page (ex. As May states(2001:42), the recorded page (42) helps us to easily retrieve the information from the original text;

- If there are several authors; after the first author, there may be written et al. (and others – after et there is not placed full stop but after al." it will be placed, as it is an abbreviation from "alia"- others).

5. Recording the Information upon the Retrieved Informatics Sources

B. <u>For the articles within magazines:</u>

- There is written the author's name and first name or the initial;
- Issuing Date;
- Title of the article (sometimes between quotation marks);
- Title of the magazine wherein it was published (generally underlined or in italics);
- Number of the volume, series and pages (the number of the volume is generally in bold characters and the series is placed between parentheses).

5. Recording the Information upon the Retrieved Informatics Sources

Example:

Weatehead, N. (2003) 'Herbal remedies: integration into conventional medicine', *Nursing Times*, **99**(34): 30-33.

5. Recording the Information upon the Retrieved Informatics Sources

C. <u>For the chapters in the books:</u>
There is usually added the publisher, after the authors' name and the title of the work.

Example:
Wragg, T. (2002) 'Interviewing', in M. Coleman and A.R.J. Briggs (eds) *Research Methods in Educational Leadership and Management.* London: Paul Chapman Publishing.

Observations:
After 'in' there is usually written the initial and afterwards the publisher's name.

5. Recording the Information upon the Retrieved Informatics Sources

D. For the articles within magazines and other materials which are to be found as CD-ROM or posted on the Internet:

- In order to record the articles within electronic magazines, in addition to the bibliographic details indicated above, there has to be also mentioned the source.

5. Recording the Information upon the Retrieved Informatics Sources

Example:

- Author's name;
- Title of the article;
- [CD-ROM] or [Online] (written between square parentheses);
- Information about the magazine (title underlined or in italics);
- Date of the article;
- Available at: ... (there is written the name of the service, the URL or the site and the date at which it was accessed); URL (universal resource locator) is the unique address of the server on which the document is stored.

CONCLUSIONS

The skills characterizing a genuine researcher will be acknowledged when you will be able:

- ✓ to locate adequate information resources,
- ✓ to accurately record the information sources,
- ✓ to regroup them and to recreate them on the basis of these newly acquired elements of knowledge!

Reference:
Bell, Judith (2005) *Doing your Research Project. A guide for first-time researchers in education, health and social science,* 4th edn. Berkshire: Open University Press.

Information Society and Research

CONCLUSIONS