

# Information literacy courses at graduate and postgraduate level: some experiments and some experience

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## **Information literacy courses at graduate and postgraduate level: some experiments and some experience**

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### **Introduction**

This contribution focuses on some official courses for which I am responsible. These courses are all related to information literacy, information technology and information retrieval. They are organised at the Vrije Universiteit Brussel (V.U.B.) and at the Universitaire Instelling Antwerpen (U.I.A.) which is part of the University of Antwerp (U.A.), in Belgium. The levels of the courses are

- 3rd university study year
- Master (postgraduate studies)

In these times of evolution towards increased importance of information sources based on computers and on the Internet, in comparison with the hard copy collection in the libraries, information literacy has become more important than ever, so that the virtual information sources become as visible for the users as the printed volumes on the shelves of classical libraries. This increasing interest in information literacy is reflected by many publications (see for instance Oberman 1998).

This contribution deals with some experience of a person (colleague?) who combines functions of university librarian for science and technology, and professor So this paper may be of interest to other people involved in training and teaching in the same area(s).

### **The contents of the courses**

More precisely than "information literacy", the chapters of the course material have the following titles:

- About "information"
- The information industry and the information market
- Classifications and thesaurus systems
- (Assessing the influence of scientific journals)
- Computer technology
- Computer software
- Disks
- Compact Discs
- Multimedia / Hypermedia

- Data communication, computer networks and Internet
- Remote terminal login and file transfer
- (Gopher and veronica)
- World-Wide Web = WWW
- (Developing WWW documents and sites)
- (WWW extensions)
- (WAIS, Z39.50 and SR)
- Data communication, computer networks and Internet
- Remote terminal login and file transfer
- (Gopher and veronica)
- World-Wide Web = WWW
- (Developing WWW documents and sites)
- (WWW extensions)
- (WAIS, Z39.50 and SR)
- Online access information sources and services
- Electronic mail
- Computer network interest groups
- The future of computer networks
- Client-server systems
- Evaluations in information retrieval
- Document delivery and interlibrary lending

The chapter on "Online access information sources and services" is the largest. It forms the core, the most important part. The titles in brackets indicate that these chapters are less important or part of the more specialised courses only.

## **Components of the courses and of the course material**

More concretely, the following components of the courses and of the course material are presented.

### ***1. A brief overview of the contents of each course, which is made available through the WWW in the official framework organized by the university***

These pages are part of the official WWW pages of the Vrije Universiteit Brussel (V.U.B.). Here we have to comply with the rules and guidelines established in the framework of the European Community study exchange programmes.

### ***2. A document for each course, with an overview of the contents, the aims and the evaluation procedure***

This is an extension of the official course descriptions made available by the University, as mentioned above. The most important addition is a detailed description of the evaluation procedure. Thus it is the most important document for a student who wants to obtain a credit for the course. These texts are maintained using Microsoft Word. They are printed and distributed to the students registered for the particular course. They have also been made available through the WWW for everyone interested -- colleague teachers as well as students -- in Belgium and abroad. They form part of the personal WWW site of the author at the V.U.B., which is available from

<http://www.vub.ac.be/BIBLIO/personal/Nieuwenhuysen/courses/index.html>

For the creation and maintenance of this Web site, Microsoft FrontPage 98 is used.

### **3. Series of slides (presentations) about the subjects covered by the courses**

These are created with Microsoft PowerPoint 7 from the Office 97 software suite. The presentation files are used directly for projection during the contact hours. The language used is English to make the material suitable for an international audience. The presentation files form also the basis for printouts that are copied and published by the V.U.B. (For instance Nieuwenhuysen 1998 is the most recent edition). A paper has already been published about this work (Nieuwenhuysen 1995).

More recent developments include the following:

- The presentations are updated almost continuously and they have been extended.
- Each slide is ranked on a scale of importance, by 1,2,3 or 4 stars/asterisks: \*---, \*\*--, \*\*\*\_ , \*\*\*\*\_ ; short basic courses only touch on the most important topics; this helps students a lot in making the distinction between core material and additional, less important aspects of the course contents.
- Furthermore, some more advanced techniques have been applied, such as the inclusion of links to small video files, and animations in slides, mainly to illustrate flows of information.
- Some of the presentations have been put on the WWW as examples after conversion to HTML + GIF format.

The new technical features of the software are welcomed. However, some minor technical problems have been observed:

- The animated slides are not saved automatically by PowerPoint to .gif files for distribution through the WWW
- The text versions created besides the graphical versions of the WWW version are not useful, when the original PowerPoint slides offer their message in more ways than just by one simple text, for example with tables, images, arrows,...

### **4. Questions, tasks, problems, practical exercises for the students**

These are included here and there in the presentations mentioned higher, in the form of slides that are all formatted similarly to distinguish them well from the other, normal slides that offer some course contents, as shown in the illustration.

These slides are used in the course sessions to guide the discussions with students. Afterwards they allow the students to check / test / assess their own level of understanding.

For many of these questions, an answer is provided in the form of one or several slides, following the particular question.

### **5. Descriptions of small assignments to be carried out by the students during the study year between the course sessions**

These are included in the slides of the presentations as a subset of the specially formatted slides with questions, tasks and problems. The aims of these small assignments are

- to stimulate discussions and involvement in the course,
- self assessment by the student, and evaluation of the level of the students.

### **6. An extensive bibliography about the subjects covered in the courses**

Hundreds of references are included. This is in the form of a file created with Microsoft Word 7 from the Office 97 software suite.

A suitable style sheet has been created, which allows easy additions, and also automatic and consistent formatting of the bibliographic references; this is based on the division of each reference in a limited number of fields which are here paragraphs, each with a particular "style". This style determines automatically the format of the field/paragraph as well as the style of the following, subsequent paragraph/field/style. The bibliography is divided in chapters, in such a way that each chapter corresponds to a presentation. The bibliography is printed for publication together with the slides; each printed version of a presentation is followed by the corresponding chapter of the bibliography. (For instance, Nieuwenhuysen 1998 is the latest edition). The bibliography is regularly updated.

The file is also made available through the WWW. A problem here is that conversion of the file to HTML format by Word does not work, probably because of the high complexity of the document. Besides the original version in the Word document file format, a simple unformatted text version is also put on the Web, because this can be indexed by Internet search engines, so that the bibliography can be retrieved.

### **7. Case studies to be carried out by each student as part of the evaluation procedure**

Most case studies simulate the preparation and presentation of an advice for a senior member of personnel in an organisation, in other words, these studies have the character of consultancy work. Each student presents the results of her or his individual case study in the form of a written report. In the exam period, these reports are discussed in a group with fellow students and the professor, to increase the real life atmosphere and to motivate the students. In some cases the results are even presented by the student to an audience of fellow students who play the role of members of the board of the institute that has asked for the consultancy. In this way the exams form an extension of the teaching. A student made the remark that she learned more during such an examination session than during the normal course sessions; this can of course be interpreted in various ways, but at least it indicates that this format for an exam deserves more experimentation.

### **8. Communication with students using electronic mail**

E-mail becomes more and more important in teaching and studying. Through e-mail

- the students ask questions and receive replies and also from fellow students and from the responsible professor, and
- the students submit small reports to the professor.

A problem here is that the professor must spend many hours on e-mail communication with students, besides the normal classical contact hours.

### **The computer programs applied in this work**

The computer programs applied nowadays to create and maintain

- the documents is Microsoft Word 97
- the slides is Microsoft PowerPoint 97
- the Web site <http://www.vub.ac.be/BIBLIO/personal/Nieuwenhuysen/> is Microsoft FrontPage 98

The software tools used to maintain the course material evolve at a high speed. That can be seen as a problem or a blessing: On one hand some consequences are that much time is needed to study the changes and to convert the material to the new formats, and that not all conversions run without problems, that the results after conversion are often far from perfect, and even worse: that some errors may creep in unnoticed (For example, the conversion from the previous to the most recent version of PowerPoint caused an inversion of many arrows in the images on the slides...). On the other hand, the new or improved features of the new versions of the software packages are usually attractive and ask for experimentation and evaluation.

### **Further work and evolution**

First some facts:

The fast evolution of information technology causes also a fast evolution of

- the contents of this kind of courses
- most educational tools and methods (WWW, e-mail, computer programs)

This offers advantages (for instance many new, exciting, "cool" aspects of the course contents), but also problems (for instance, updating programs and course contents is quite time consuming).

Information literacy is important for everyone, in all countries, including developing countries. We observe a shortage of teachers, for instance in developing countries like Tanzania, Kenya,...

There is a growing need for educational methods that allow study at any time and any place, towards the "virtual university" (still based on printed material, but also on WWW and e-mail). Terms related to this tendency that are used more and more are

- "from teaching to learning"
- from "teachers" to "learning managers"
- "lifelong learning"
- "distance learning"
- "flexible learning"

Development of course material and application of Internet in teaching are time consuming and not without difficulties.

All these facts have lead us to conclude that a central framework and service is needed in each university to assist professors in this part of their work. Therefore, a few colleagues and myself have submitted a project proposal to our university to study how to set up such a framework. Of course we would like to learn more about the application of Internet in learning in other insitutes, and in particular in the area of information literacy; for instance the European DEDICATE project looks interesting (Levy and Fjällbrant 1999). I can only hope now that we will be able to report on this in the future.

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