

LIS901a

Building a digital library

2001–04–08

The latest version of this document is available on the web at <http://openlib.org/home/krichel/lis901ap01s/lis901ap01s.html>.

Course Description

This course aims to build a small digital library from scratch. It uses only software that is freely available on the Internet. The digital library will assemble data that is currently dispersed on the Internet.

Each student will build their own digital library. Each digital library will be a collection of descriptions of online documents. Each student will build a user service for their own collection. In addition, students build a user interface for the collection of descriptions assembled by the whole class. The whois++ protocol, as implemented in the ROADS software, implements this type of architecture.

Course objectives

The course has two objectives. There is a direct objective of the course. The students will acquire the basic technical capacity to build and operate a digital library on their own.

- they will have gained some familiarity with the Unix operating system
- they will have learned how to collect and transform digital data to extract metadata
- they will be able to index the metadata
- they will be able to run a WWW user interface for the data in the index

Second, there is an indirect objective to the course. This is that the practical work on a digital library will encourage the student to think about the issues that surround digital libraries. These can be metadata problems, information retrieval questions, copyright issues, etc.

Prerequisites

There are no other formal prerequisites for this course. Students should be familiar with the World Wide Web, and should be able to use a MS Windows computer. In addition, students should know about web resources relevant to library and information science and related disciplines.

Students should also be familiar with basic concepts of computer hardware and software, concepts like files, memory. In addition, students should have a basic familiarity with the Hypertext Markup Language (HTML). Everything that goes beyond that will be explained in class or by personal interaction with the instructor.

Students must be aware that this course is fairly computer technical in nature. A knowledge of computer programming is not required, instead it will be acquired during the course. A willingness to learn is essential.

Finally, students should be aware that the course has an experimental nature. They should think of the unexpected nature of problems that lie ahead as a challenge, rather than a nuisance.

Instructor

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Private contact details may be obtained from the online CV at /home/krichel/cv.html.

Class structure

Classes will be held on Sundays between 12:30 and 15:30. Each class will have some presentation by the instructor. However a majority of time the class will work directly with their computers under the supervision of the instructor. Between classes students are welcome to see the instructor or ring him at any time.

2001-01-21 *snow, class canceled*
2001-01-28 Why this course? Unix basics
2001-02-04 Installing ROADS
2001-02-11 The IAFA templates
2001-01-18 practice session I
2001-02-25 practice session II
2001-03-04 The whois++ protocol
2001-03-11 A guided tour of ROADS
2001-03-18 practice session III
2001-03-25 *instructor absent, no class*
2001-04-01 practice session IV
2001-04-08 presentation of results
2001-04-22 *deadline for handing in essay*

Readings

There is no book that covers the contents of this course. There are no readings as such, the majority of the work will be done on the computer. The texts that we will study in some detail are

- RFC 1835 at <ftp://ftp.isi.edu/in-notes/rfc1835.txt>
- The IAFA templates, available as plain text at <http://openlib.org/home/krichel/lis901ap01s/iafa.txt> or in PostScript at <http://openlib.org/home/krichel/lis901ap01s/iafa.ps>.
- The ROADS Web site at <http://www.roads.lut.ac.uk/>

A good site for help on Unix is Unixhelp. A local mirror is available sponsored by Union College.

Other digital libraries using the ROADS software include:

AERADE at <http://aerade.cranfield.ac.uk>

nadir Adressbuch at <http://www.nadir.org/nadir/adressbuch/>

NOVAGate at <http://novagate.nova-university.org/>

alex at <http://www.infomotions.com/alex/>

routes at <http://routes.open.ac.uk/>

port at <http://www.port.nmm.ac.uk/>

becal at <http://www.becal.net/>

libr at <http://www.libr.port.ac.uk/>

cpd at <http://www.cpd.bris.ac.uk/>

mathgate at <http://www.mathgate.ac.uk/>

There is another list of ROADS services <http://www.ilrt.bris.ac.uk/roads/who/>.

Finally the course has a website at <http://wotan.liu.edu/home/krichel/lis901ap01s>.

Assessment

The assessment will be based on four components

1. The library database of the student and the its interface to be presented by the student in the last session of the class. This presentation will carry 50% in the final grade.

2. A short essay on a topic of the student's choice, approved by the instructor. This will be handed in by the student two weeks after the last meeting of the course. This essay will carry 50% in the final grade.

Student and Instructor gateway

- Chris DeChristofado
- Thomas Krichel
- Emily Walshe
- Art Yudelson

Resource List

Here is a list—gathered by José Manuel Barrueco Cruz—of resources to be added to a Library and Information Science document gateway

<http://www.bn.pt/org/agenda/ecdl2000/>

<http://www.oclc.org/oclc/man/authconf/confhome.htm>

<http://www.asis.org/Bulletin/index.html>

<http://educate.lib.chalmers.se/iatul/proceed.html>

<http://www.fh-potsdam.de/~IFLA/INSPEL/intro.htm>

<http://www.ifla.org/V/iflaj/index.htm>

<http://www.ifla.org/IV/confproc.htm>

<http://wings.buffalo.edu/publications/mcjrnl/back.html>

http://www-slis.lib.indiana.edu/TIS/tables_of_contents/toc.html

<http://etext.lib.virginia.edu/bsuva/sb/aboutsb.html#etext>