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WWW Home Page Assignments in MIS Courses

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Introduction

The WWW provides a large increase in options available to telecom course instructors. One option is to require that students create home pages on the Web. Each student can be assigned a home page that includes personal information. Or, teams can be assigned.

In either case, students will have hands-on experience with a classic client/server (C/S) application. But, in the case of the WWW, the name "client/telecom/servers," or C/T/S, is more accurate. Having such a C/T/S assignment, however, requires instruction on the component material. These requirements lead to the conclusion such assignments are easiest to do in telecom courses.

C/T/S

A C/S application can be complete with a minimal network, e.g., micros is one room on a LAN. A sufficient knowledge of the LAN can be what plugs go where. The WWW, conversely, implies connectivity to the world. It requires an understanding of how a given micro or workstation communicates from the local setting to the world at large.

Client: Students assigned a home page in a telecom course will have to cover the requirements of a client. This will involve a micro or workstation, its operating system, and the GUI interface to the browser of choice. Students will also have to know how to use software to make HTML files, communications software to access the local LAN and/or to dial up a SLIP or PPP server, and a Web presentation package such as Netscape or Mosaic.

Telecom: The protocol used by one's school for on-site LAN and/or dial-up connectivity should be covered from an operational, user hands-on point of view, not a technical coverage. TCP/IP is commonly used on LANs. Serial line internet protocol (SLIP) and point to point protocol (PPP) for dial-up access to a server are now common. These can be covered in other parts of a telecom course. Their use can then be brought into the home page assignment.

Coverage of information on network software can be included early in a telecom course, e.g., Novell, the current industry leader. Physical media standards and modalities (copper fiber, infra red, radio, spread spectrum) would normally be covered in a telecom course.

Similarly, the menu of LANs can be covered earlier in the course: Local, Campus, Metropolitan, Regional, Wide, and, of course, the loose international confederation of networks we commonly refer to as the "Internet."

Server: Students should have hands-on experience with a remote system prior to or during the course. This may be a server on a micro LAN, a mid-size processor on a campus network, or a traditional mainframe. The components, regardless of the platform, will include a hardware system, operating system and node operating system.

The server runs a hypertext transfer protocol daemon (HTTPD), i.e., a home-page Web server executive. This can be based on any of the three physical platforms noted in the above paragraph.

Finally, the server must be able to provide relatively easy access, uploading and editing. In contrast with character-based FPT packages, the GUI-based packages make file transfers almost trivial -- IF the logical process itself has been previously discussed. HTML files may be most easily written on the client side, but the capability of editing files after they are on the server is necessary to have a reasonably productive total work environment.

Four Users

The four authors can be considered "intensive" users of the Internet and Web. We have assigned home pages in our undergraduate and/or graduate courses. We all consider the exercises successful -- as do our students. Some of the items discussed and implied above are reviewed next given our expectations and experiences.

Individual or Group Assignments: We have mixed preferences on the type of assignment. Brad (Wheeler, Maryland) does not structure the work; he accepts groups proposals that become contracts. Dick (Elnicki, Florida) requires each student to do a home page; five items are required with 1 or more open-ended additions as preferred by each student. Dave (Naumann, Minnesota) is less structured than Dick with a similar set of requirements.

Courses: We include home-page assignments in a mix of courses, not just telecom courses. The details are included in our various course URL's listed below.

Browsers: We use Netscape. And Mosaic. And Cello. In all cases, the software is available on school-based systems. At Florida, Dick can give students a complete "suite" of software for use at home including freeware or site licensed packages for students, faculty and staff. The suite includes a winsocket, browser, IBM 3270 emulator, VTnnn emulator, FTP, chat, ping and LView. The latter does graphics conversions among JPG, BMP, DIB, GIF and TGA file types.

HTML & Web Coverage: We are in agreement on the amount of time we should spend on the hypertext markup language (HTML) and on the mechanics of the Web. As little as

possible! Patrick (McKeown, Georgia) notes that his, "...students have already been exposed to the WWW in Rick Watson's MBA Introduction to MIS course so I spend about 1 hour on HTML and FTP." He spends more time on security and privacy issues. One hour each for browser functions and HTML should be sufficient in telecom courses.

Server Hardware: Dave (Naumann, Minnesota) set up his own servers. His students use a Dell XPS P60 Pentium running MS Windows NT 35. He notes that there is quite a bit of overhead in using the pedagogy! Brad had his students run their home pages on Maryland's central Unix system. Dick's students put their home pages on a VM/CMS system running on an IBM ES9000 in a Florida State University System computing center. Dick also has them use an attached SP2 running Unix as the server for their virtual mailers, i.e., the designated mailer for browser "MAILTO:" functions.

C/T/S Road Map: A "road map" to client/server was distributed as an insert in the August, 1994 edition of Client/Server Journal. It includes a general structure Dick has found extremely useful for instruction. It also includes extensive, almost bewildering lists of software for the 39 categories the author presents for potential C/S users. It is copyrighted by Jeffery Tash, 1994: Database Decision, 617-332-3101, 70740.1021@CompuServe.Com.

Author's URL's: The following list contains URL's for the authors' personal home pages, course outlines and home page assignments. Student pages from the courses are also included. All URL's were current when this was last updated (6/25/95).

Dick Elnicki:
Personal Home Page: http://nervm.nerdc.ufl.edu/~dicke
Course Outline: http://nervm.nerdc.ufl.edu/~dicke/ism/assig10.html
Assignment: http://nervm.nerdc.ufl.edu/~dicke/ism/outline.html
Student Home Page: http://nervm.nerdc.ufl.edu/~dicke/f94hp.html
This Paper: http://nervm.nerdc.ufl.edu/~dicke/ais95pr.html

Patrick McKeown:
Personal Data: http://www.cba.uga.edu/telecom/man874.htm & find "Dr."
Course Outline: http://www.cba.uga.edu/telecom/man874.htm
Assignment: http://www.cba.uga.edu/telecom/man874.htm & find "Grading"
Student Home Pages: http://www.cba.uga.edu/telecom/man874.htm & find "Contributions"

Dave Naumann:
Personal Data: http://www.csom.umn.edu/CSOM/Faculty/IDSc/Naumann.html
Course Outline: http://webfoot.csom.umn.edu/class/ids3132/95w3132s.htm
Assignment: http://webfoot.csom.umn.edu/class/95wa4htm.htm
Student Home Pages: http://webfoot.csom.umn.edu/class/students.htm

Brad Wheeler:
Personal Data: http://www.wam.umd.edu/~bwheeler

Course Outline: http://www.wam.umd.edu/~bwheeler/bmgt620.html
Assignment: http://www.wam.umd.edu/~bwheeler/bmgt620.html & find "Sample"
Student Home Pages: http://www.wam.umd.edu/~wheeler/620a94.html