A report from the "Teaching and Learning with the Web" workshop at WWW '94.

Moderators: K. Hensarling, D. Peraya, D. Schneider and M. Speh(1).

The workshop took place within the First International Conference on the World-Wide Web on the afternoon of Thursday, May 26 and the following morning.

1 Organization and Participants

Active workshop participation was open to anybody preparing in advance a contribution such as a position paper, a report on the educational use of the Web, a paper with questions, etc. After the call for participation, many people showed interest. Finally, we received 17 contributions which can be consulted from the workshop page(2). During the conference's workshop afternoon, the meeting room was totally filled with "guests" showing that interest for the educational potential of the Web is high.

According to the interest of the participants and the organizers, discussion was split into three subtopics. Active participants received printed "proceedings" and a structured workshop program with discussion points prepared in advance by the moderators. Although, this was the longest WWW '94 workshop, only parts of the program could be managed. Discussion was mostly centered either on technical issues or organizational and social ones. The main benefit from this workshop comes probably from what has happened before (the written contributions) and more so from what will happen as a result of the workshop. It was the first such meeting ever, and the workshop fulfilled well this "let's start doing something and get organized" role. People interested in the field can consult the workshop page(2) for more details on how we plan to continue our collaboration.

2 General Discussion

2.1 Structured Teaching and Learning with the WWW (M. Speh)

In this introductory session, the participants used the opportunity to warm up by argueing about a wealth of questions related to a structured use of WWW in education. The subsections to this session were concerned with three issues:

- *Web education*, like gaining control over the fast growth of the Web and the central problem whether or not the Web should strive to improve on shortcomings of not network-based education.
- *Structure of Web courses*, ranging from "good" design of a particular (educational) Web page to the general problem of how to teach a Web-based course - various methodological issues which could be addressed in more detail only in the third session.
- *Free Education*, asking for reflection upon some political and social implications of bringing structured information to the Web, including the question of target audiences and mentioning inititiatives like the GNA(4) committed to online education with the Web.

From the discussion, it became clear that educators who are excited about the potential of applying hypermedia technology need to take into account the fact that an enormous, very active distance education community is out there with the experience of decades in structuring courses. The participants were eager to hear about real examples of courses taught with the help of WWW. There was agreement that a quick guides like "*How to write good educational HTML*", and "*How to design a Web course*", in addition to the server & access toolkit (see below), would be very welcome.

Altogether, this session may be considered exemplary for the whole workshop by showing that we have barely scratched the surface of interrelated problems connected to the educational use of WWW. Though it appeared as if the diversity of interests and activities represented by WS participants may well prove to be a key to the thoughtful development of this valuable, fascinating tool (5).

2.2 Educational Information Systems (K. Hensarling)

This portion of the workshop provided the participants with an excellent forum for discussing the problems associated with setting up an Educational Information System using WWW technology. The importance of this technology to Campus-wide Information Systems is apparent from the growing number of schools setting up such services(3). From the discussion at the workshop it is clear that educators need to share their experiences in developing this WWW-based systems.

As a results of workshop discussion, the participants agreed that a clearinghouse of information focusing on setting up and administering WWW sites was much needed. It was agreed that much can be learned from sharing the experiences that educators are going through maintaining their own WWW systems. Furthermore, participants discussed and supported the idea of creating a Webmaster's Toolkit that would contain the lastest copies of software, utilities, documentation and tutorials needed to setup and maintain a Web site.

2.3 Methodological and Technical Issues (D. Schneider)

Participants expressed a clear need for computer based learning methodology and distance/open learning. A lot of literature exists, but was shown to be generally unknown. The wish was expressed, that some major computer based learning unit should put some material on this subject on the net.

Furthermore, most participants seemed to agree that teaching and learning take place within a “global learning environment” that fulfills a number of functions, such as “teaching”, “assessing”, “disposal of learning materials and tools”. Nobody learns just by reading some hypertext or by filling out forms. Learning means “doing” and educational setups using the Web have to take this fundamental rule into account. Currently, things like guidance, assistance, discussion and learning tools have be provided by other media than the Web. Integration of the Web with other Internet tools (such as MOO’s) and other server-side or client programs are needed to bring forward the Web’s full potential as an information and communication integrator.

3 References:

(1) Kenneth Hensarling, Honolulu Community College (HCC) - Daniel Peraya and Daniel Schneider, TECFA, School of Psychology and Educational Sciences, University of Geneva - Marcus Speh, Deutsches Elektronen Synchotron (DESY) and GNA.

(2) All information concerning the workshop and planned future activities is available from “http://tecfa.unige.ch/edu-ws94/ws.html” which is hosted at TECFA, University of Geneva.

(3) See for example “http://kawika.hcc.hawaii.edu/ws94/cwis.html”.

(4) The Globe-Wide Network Academy (GNA): http://uu-gna.mit.edu:8001/uu-gna/index.html.

(5) See e.g. the GNA Schools Page: http://uu-gna.mit.edu:8001/uu-gna/schools/index.html.