

## **Request for Funds to Supplement NSF Award DUE-9751113**

### **Purpose**

Supplemental funds are being requested to expand the Web Based Undergraduate Research Paper Clearinghouse (hereafter called simply "Clearinghouse") component of ILI award DUE-97-51113.

### **Relationship to Original Proposal**

The original proposal (page 5) indicated *"A secondary goal of this project is to establish an Undergraduate Psychology Research Clearinghouse using the World-Wide-Web. This clearinghouse will enhance communication among student researchers around the country, and can provide an outlet for high quality student research conducted in all 50 states."* This clearinghouse was described further in section B.4. (page 8).

As originally envisioned, the equipment provided by the ILI grant would allow the expansion of the Psychology Department's web resources to reach other departments at Missouri Western State College (MWSC), and eventually other institutions. The equipment purchased with ILI funds will allow this to occur, although limitations on other resources will not allow the original "equipment only" grant to allow a project of the scope currently envisioned.

This (originally) secondary goal of award DUE-97-51113 has increased in priority and scope for several reasons. Most importantly, the reviewer comments provided for the original proposal indicated great excitement about this component [all but one reviewer made a point of commenting on this component]. In addition, our grant officer indicated that this component should be given "special attention" because of its national scope and the enthusiasm of the reviewers. Comments from our summary review and individual reviews relating to this component include:

*"... There was considerable enthusiasm about the prospect of the novel proposal to develop a Web-based clearinghouse for undergraduate research across the country, an idea with the potential for national impact"* [Summary Review]

*"The notion to develop a WEB clearinghouse for undergraduate research projects is also a novel idea, and one that may have the potential to have a true national impact. It has not taken long for the Web to break down geographical and institutional barriers to cooperation, but we have not exploited the capacity of this system to let undergraduates collaborate with like-minded individuals. This project offers the potential for that to happen"* [individual review]

*"Dissemination plans will achieve national impact by establishing an Undergraduate Research Clearinghouse on the world-wide-web. This is an extension of an existing project and seems commendable and within the capability of the PIs"* [individual review]

*"Finally, the interdisciplinary connections mentioned in the proposal are exciting and will provide students with many opportunities"* [individual review]

*"What is rather innovative is the use of the World-Wide-Web as a clearing house for student projects."* [individual review]

Thus, the request being made for supplemental funds clearly and directly relates to the original request, however, the scope of the modified project clearly surpasses the original funding request. This increase in scope is a direct response to comments made during the original review process.

### **Description of Proposed Clearinghouse Component**

The proposed clearinghouse will provide undergraduate students around the country the opportunity to engage in scientific communication at a national level, and in an interdisciplinary manner. This access will apply to students in all science departments, at all types of colleges and universities, and at all levels. In modern business and industry, scientists are in great demand. In particular, scientists who have good communication skills, and broad exposure to a variety of paradigms are sought. In addition, students who will not be scientists may be in positions to make decisions about science. It is of utmost importance to provide these students with wide exposure to science in a variety of disciplines. The clearinghouse attempts to address these needs by providing students an outlet for dissemination of their own work, as well as examples of scientific efforts in their own and other disciplines. The direct experiences provided by this project enhancement will allow this to happen.

Students at many institutions perform original research in the process of learning research skills and being socialized into their professions. Unfortunately, these research projects are often performed and presented in isolation (from the rest of the college, as well as the rest of the world). The clearinghouse will provide a means for student papers to gain national (international) exposure through an automated submission process. The quality of submissions will be controlled through a "sponsor" mechanism. Although all sponsored manuscripts will be accepted, a mechanism will be created for peer reviews of submitted manuscripts. This mechanism will allow manuscripts to be rated on several axes (e.g. scientific rigor, readability, contribution to the discipline, accuracy of conclusions, etc.) so that consumers of the clearinghouse have data to judge the work by.

### **COMPONENTS OF CLEARINGHOUSE**

- Automated web based submission and editing process for empirical studies and literature reviews.
  - To ensure quality, papers must be sponsored by a faculty member to be eligible.
- Automated search mechanism based upon discipline, topic, keywords, etc.
- Web based discussion groups for the purpose of exposing students to scientific communication processes and professional socialization
  - General discussion areas will be provided for interdisciplinary issues related to science (e.g. ethics, human and animal subjects, funding, graduate programs, national scientific honor societies)
  - Discussion areas will be provided for each paper, serving as a mechanism for students to receive criticism and reviews of their manuscripts. These comments will be provided by other students and practicing scientists.

## **Budget Justification and Allocation of Additional Funds**

I see the most important parts of the clearinghouse project as quality control and dissemination. Therefore, a large portion of the funds requested will be used to subsidize expanded dissemination efforts. Even with adequate dissemination, however, the clearinghouse won't be a success if it isn't useful to a variety of institutions. Thus, we will be seeking feedback from our colleagues (via attendance at teaching conventions) in the early summer of 1998. The remainder of the summer will be spent fine tuning and programming the clearinghouse (using a summer stipend). A finished product should be available nationwide in the Fall of 1998. An additional year will be used to evaluate the finished product.

The following budget items are being requested:

### *A.1. Salaries*

- 2/9 of the PI's academic year salary is requested as a summer stipend. Time devoted to the project during the academic year will not be charged. A substantial amount of programming will be required to implement the Clearinghouse, thus, this summer stipend will allow for the final programming and planning involved in establishing the automated submission and review processes. The PI is a skilled computer programmer, so salaries and/or programming fees in addition to the stipend are not required.

### *E.1. Travel, Domestic*

- \$2750 is requested for travel to a variety of regional and national conventions for the purpose of recruitment, testing, and dissemination. Note that a substantial portion of this will be provided via cost sharing. These funds will allow the PI to attend a minimum of four undergraduate teaching conferences where discussions relating to the clearinghouse will be held, and potential users recruited.

These conventions are as follows:

1. May, 1998. Attendance at the Midwestern Psychological Association Convention where the PI is scheduled to make a presentation relating to the clearinghouse. This will be used as an opportunity to receive feedback from potential users as to the desired format for the clearinghouse.
2. May 1998. Attendance at the American Psychological Society to participate in the Institute on the Teaching of Psychology. The primary purpose here will be to receive feedback on a working pilot of the clearinghouse, and to solicit pilot testers.
3. August 1998. Attendance at the American Psychological Association to disseminate information on the availability of the product. At this point, the clearinghouse will be complete and ready for access by the general public.
4. National, interdisciplinary undergraduate research conference (e.g. CUR, NCUR). This will be conducted after the clearinghouse is functioning for the purpose of recruiting users, and getting feedback from current users.
5. Additional Travel. Additional dissemination and recruitment efforts will be conducted, however, those efforts were included in the original proposal, and we will not be seeking additional funds to carry them out. The first three trips were not included in the original proposal, and they are seen as important to the development of a useful clearinghouse.

*G.2. Publication Costs/Documentation/Dissemination*

- \$2000 is requested to print and mail brochures recruiting users (summer 1998), and to print and mail an evaluation instrument to undergraduate science programs (spring 1999). The success of the project relies on recruiting an active body of users from around the country. The combination of travel (E.1) and print advertisement (G.2) is seen as the most cost effective means to accomplish this.

*I. Indirect Costs*

- MWSC has requested 40% of salaries for indirect costs.

*M. Cost Sharing*

- MWSC will provide the PI with approximately \$1200 of the travel funds requested through the Division of Liberal Arts and Sciences, and the Psychology Department travel budget (Line E.1)
- MWSC will provide benefits valued at 25% (\$2010) of the salary request.
- MWSC will provide student and staff labor to assist the PI with clerical tasks associated with this project. [anticipated .10 FTEs for the duration of the project]
- Time devoted to the project during the 1997-98 and 1998-99 academic years will not be charged to the project [anticipated .10 FTEs during academic year]