

2002 Interim Report to the Andrew W. Mellon Foundation

In September 2001, the Andrew W. Mellon Foundation awarded Xavier University, through its Center for the Advancement of Teaching, a three-year faculty development and technology grant. This grant will support four aims or initiatives:

1. The Rich Media Projects Initiative
2. The Technology Infusion Projects Initiative
3. Technology Workshops
4. Two Research Initiatives
 - i. Technology Training Center
 - ii. Student Information Technology Certification Program

This report documents the activities associated with the grant during the period from October 1, 2001 to October 31, 2002.

Rich Media Projects

The Center has promoted faculty creativity and innovation with information technology through an initiative which stresses ambitious goals and long-term planning. These *Rich Media Projects* aim to create websites and CD-ROMs that combine different types of media (e.g., text, images, video, audio, animation, databases) and allow for some degree of interactivity on the part of the user. As a rule, these are more ambitious projects than a faculty member might normally take on without the support that the Center provides in the form of release time, stipends, reimbursement for expenditures, and staff support.

The Process

In Fall 2001, and again in both Spring and Fall 2002, the Center issued a request for proposals (RFP) to all Xavier University faculty members. Proposals were evaluated by faculty members that serve on Xavier's Teaching, Learning and Technology Roundtable (TLTR), and those deemed worthy of support were approved for Phase I, *Planning*.

Planning is the key to success with any ambitious project. The first step for an intensive multimedia project is the formulation of a **design document** -- a comprehensive plan that explains what the project is and how it will be realized. Often, writing a design document is the most challenging and critical phase of the entire project. The Center has developed a standard template for such documents, and the Center's multimedia artist works with the faculty members as they develop and refine their plans.

The completed design documents are published on the Center's website and are reviewed by TLTR. Critical feedback from TLTR provides a basis for the Center to determine which projects should move on to the next phase.

Phase II, *Implementation*, is where the actual work on the project begins. Often this work is in the hands of the Center's Multimedia Artist and the faculty member, but every project is different. Fortunately, the steps for this phase have all been spelled out in the design document. This phase takes at least one semester, often longer. At the end of the phase, a complete rich media product is submitted to TLTR for review. Again, critical feedback from TLTR helps to improve the product and provides a basis for the Center to determine which projects should move on to the next phase.

Phase III is *Testing and Evaluation*. In this phase, the product is evaluated to see if it actually accomplishes the goals set forth in the design document. A variety of techniques are employed for this purpose, such as surveys and usability tests; every project requires a different evaluation strategy. Once again, the steps for this phase have been specified in the design document. The final evaluation report is published on the Center's website and submitted to TLTR for a final review.

Description of Projects and Products

The information provided below in Table 1 accounts for all faculty members involved in the Rich Media Projects Initiative and who have been supported by this grant from the Andrew W. Mellon Foundation. Some of these projects actually began under a previous grant from the Foundation and are now in the latter phases of development. One project (*Haiku of Kobayashi Issa*) has completed all three phases described above.

Project name	Description	Faculty	Current status
<i>Haiku of Kobayashi Issa</i>	A website with Dr. Lanoue's translations of the Japanese poet Issa, along with information about Issa's life and haiku.	Dr. David Lanoue, English Department	Successfully completed all three phases described above
<i>Vive la Louisiane, un état pas comme tous les autres</i>	A CD-ROM which will feature Francophone Louisiana residents speaking in French about work responsibilities, family background, and other cultural tasks.	Dr. Susan Spillman, Languages Department	Phase II: Implementation

Project name	Description	Faculty	Current status
<i>Collage Culturel</i>	This multimedia CD-ROM will help first-year students learn about French language and culture through interviews with Francophone speakers from around the world, photographs depicting elements of French culture, and interactive exercises.	Dr. Carmen Rogers, Languages Department	Phase II: Implementation
<i>Interactive Taxonomic Zoology</i>	An interactive CD for biology students to help them learn animal taxonomy.	Dr. Mark Schlueter, Biology Department	Phase II: Implementation
<i>Kids to Afrika Website</i>	The goal is to make the existing website more flexible, dynamic, and accessible.	Ms. Debra Harley, Public school teacher	Phase II: Implementation
<i>Theological Perspectives of the Reformation</i>	An interactive CD that incorporates PowerPoint presentations, theological documents of the Reformation Period, video interviews, and summary charts of the theological issues related to the Christian Reformation.	Dr. Mark Gstohl, Theology Department	Phase I: Planning
<i>BibleDudes</i>	This multimedia website is designed to creatively and interactively entertain and teach students about the Bible and the academic discipline of biblical studies.	Dr. Michael Homan, Theology Department	Phase I: Planning
<i>The World Inside New Orleans</i>	This project will create a comprehensive history course website or CD that grounds each of twelve major topics of modern world history in a material aspect of the city of New Orleans.	Dr. Kathryn Barrett-Gaines, History Department	Phase I: Planning

Table 1. Rich Media Projects Initiative.

Lessons Learned

Phase IV

As Dr. Lanoue finished Phase III of his project, a website called *The Haiku of Kobayashi Issa*, he asked the Center to consider what happens next. Is Phase III the end of the Center's involvement with the project? Clearly, the website or CD-ROM created in the first three phases will continue to endure and undoubtedly need occasional updates, improvements, and maintenance. It could be argued that these projects are never really "done" but will always require some care and attention. The question is: Who will take responsibility for these tasks? Is the faculty member to shoulder the entire burden, or will the Center provide some form of continuing support?

After some internal deliberations, the Center decided to add a fourth phase to the Rich Media Projects lifecycle. Phase IV, *Continued Support*, represents a commitment by the Center to provide ongoing service to successful projects. In this phase, the Center's multimedia artist will work with faculty members to make occasional updates and improvements to the project and perform maintenance as needed.

The open-ended nature of this phase poses a special problem. As more and more Rich Media Projects enter this phase, the work involved in providing continued support will multiply. The amount of work entailed in supporting any given project may be small (though possibly not), but the amount of work entailed in supporting all projects combined will eventually become significant. However, we have no metric with which to gauge exactly how much work continued support will entail.

Collaboration and Assessment

TLTR reviews the design documents produced in Phase I for the purpose of determining which projects will proceed to Phase II. We have come to realize that this is an excellent opportunity for the authors to receive critical feedback which will allow them to revise and improve their design documents. Therefore, we have modified the schedule to allow the authors to receive this critical feedback and make the recommended changes in the first semester of funding, when they still have release time. Design documents are no longer considered complete until *after* the feedback has been received and the revisions have been made. This change allows for more meaningful collaboration and assessment, which in turn keeps the initiative closer to the guiding principles of the grant.

These projects tend to be the brainchild of a single faculty member. However, throughout the funding period, faculty members are required to attend a series of informal lunches each semester. During these lunches, faculty members share their progress with one another. The purposes of this exercise are to offset the sense of isolation that can occur during the initial planning process, encourage a cross-pollination of ideas and enthusiasm, and, quite frankly, inspire faculty members to "keep up" with their colleagues. All funded faculty members are required to attend, but the series is mainly for the benefit of those in Phase I.

When slogging through the difficult planning phase, it is helpful to hear from someone who has survived that phase and moved on to actual implementation. Each lunch in the series is devoted to a theme. We are still fine-tuning the process, but a typical series of four lunches might follow this pattern:

Orientation: Everyone articulates his or her hopes and goals for the coming semester. Faculty members who are beginning the process get a chance to hear from colleagues who are further along.

Progress Check: Faculty members writing their design documents should be half-way done. Everybody shares his or her frustrations and inspirations.

Post-Doc: Faculty members in Phase I should be finished with their design documents (or at least a first draft) which have been submitted to TLTR for review.

Review: By this time, faculty members will have received critical feedback from the reviewers. At this lunch, we discuss the feedback and how it will change the design document and the concept of the project. Everyone reflects on the work accomplished and lessons learned over the course of the semester, and what the next step is for the next semester.

Things to Come

In the next semester (Spring 2003), there are two new projects entering Phase I (Planning). One project aims to develop a website that supports and documents a literary reading series at Xavier University; the other project aims to develop a CD-ROM of demonstrations and interactions in cognitive psychology. We also hope to see as many as three projects graduate to Phase II (Implementation), including *BibleDudes*, *The World Inside New Orleans*, and *Theological Perspectives of the Reformation*. Several other projects (*Kids to Afrika*, *Interactive Taxonomic Zoology*) will be continuing in Phase II, with one project in particular (*Vive la Louisiane*) nearing completion of this phase in the next few months.

Technology Infusion Projects Initiative

The Technology Infusion Projects Initiative supports faculty members' use of existing or new information and educational technology and media to enhance teaching and student learning. Each project consists of two phases, each a summer or semester in duration. During Phase I, the faculty member plans and develops the project, and in Phase II, the project is implemented and assessed.

This initiative is designed to support both entry level and more complex projects. Projects may include incorporating e-mail or WebBoard into an existing course, developing a course website, integrating

Blackboard into a course, using virtual office hours via bulletin board chat, using videoconferencing to enhance classroom experience, integrating electronic presentations (such as PowerPoint slides) into a course, using commercially available CD-ROMs or discipline-specific courseware for instructional purposes, conducting classroom research that focuses on the effect of technology on teaching and learning, or integrating JSTOR or other electronic journals or databases into a course.

The Process

In Fall 2001, and again in both Spring and Fall 2002, the Center issued requests for proposals to all Xavier University faculty members for the Technology Infusion Projects Initiative.

The Center invited faculty members to a number of meetings to discuss the Initiative and the guidelines for the proposals. Faculty members that serve on Xavier's TLTR evaluated the proposals, and those deemed worthy of support were approved for Phase I, *Planning and Development*. Faculty members whose proposals were approved for funding were invited to have the assessment component, in particular, reviewed by Dr. Nancy Hunt, Director of the University of New Orleans's Center for Excellence in Learning and Teaching. Dr. Hunt critically evaluated the assessment plans of several faculty members' proposals.

Throughout the period during which faculty members participated in the Technology Infusion Projects Initiative, they met together at least once each month. The purposes of these luncheons are to provide a venue in which faculty members can share their successes and frustrations, pose questions, explore issues related to technology, teaching, and learning, and, in general, be inspired to fully develop their projects. As with the RMPI luncheons, we are fine-tuning this to better serve the needs of faculty members and the goals of the Technology Infusion Projects Initiative. In general, however, each luncheon has had a theme:

Orientation: Faculty members have an opportunity to describe their projects and learn more about the Initiative. For faculty members who are beginning Phase II, this is an opportunity to discuss the comments made by the TLTR reviewers.

Assessment, Part I: Faculty members discussed two articles that address issues related to assessing technology projects and their affect on teaching and student learning.

Progress Check: This is a chance for faculty members to report on the progress they've made in developing their technology project.

Assessment, Part II: Faculty members shared the surveys and other means of assessment that they will be using with students.

After completion of Phase I, faculty members' project reports were evaluated by TLTR to ensure that projects progressed sufficiently before moving into the Phase II (*Implementation and Evaluation*). Evaluations by TLTR provide faculty members an opportunity to "hear" the voice of an outside reviewer before moving into the project's second phase.

At the conclusion of Phase II, faculty members will submit a final report that will be reviewed by members of TLTR. The review will focus on the degree to which the projects' goals were reached or exceeded.

Description of Projects and Products

The information provided below in Table 2 accounts for all faculty members who have been funded under the Technology Infusion Projects Initiative by this grant from the Andrew W. Mellon Foundation. The accomplishments of these projects are described in Table 3.

Project name	Description	Faculty	Current status
<i>A New Approach to CHEM 3210: Quantitative Analysis</i>	The course will be enhanced with PowerPoint presentations, electronic lecture notes, and e-mail question sessions	Dr. Grace Zoorab Chemistry Department	Phase 1: Planning and Development
<i>Corporate Responsibility Before Enron</i>	An interdisciplinary and inter-institutional approach to examine corporate responsibility through videoconference and Blackboard.	Drs. Jerry Farmer and Fred Humphrey Theology and Philosophy departments, respectively	Phase 1: Planning and Development
<i>Electronic Distribution List in a Poetry Workshop</i>	Poetry workshops enhanced with online critiques using WebBoard as an electronic distribution listserv	Dr. Biljana Obradovic English Department	Phase 1: Planning and Development

Project name	Description	Faculty	Current status
<i>Accounting</i>	On-line guest speaker activities and electronic discussions in an Accounting course	Ms. Jean Meyer Business Department	Phase 2: Implementation and Evaluation
<i>An Exploration of Pre-calculus through Scientific Workplace</i>	Pre-calculus student activities developed using Scientific Workplace software	Drs. Paul McCreary and Donna Stutson Mathematics Department	Phase 2: Implementation and Evaluation
<i>Biology 3350: Improving Pedagogical Methodology</i>	PowerPoint presentations for lecture materials; student use of Blackboard.	Dr. Roldan Valverde Biology Department	Phase 2: Implementation and Evaluation
<i>Incorporating Hyper-Interactive Teaching Technology in the Biochemistry Class</i>	Handheld keypads to facilitate active participation by students in a Biochemistry course	Dr. Nitsa Rosenweig Chemistry Department	Phase 2: Implementation and Evaluation
<i>Inclusion of Web-based Technology into English 0990</i>	In English 0990, faculty and students will use the Internet, PowerPoint, and the SmartBoard.	Dr. Deany Cheramie English Department	Phase 2: Implementation and Evaluation

Table 2. Technology Infusion Projects Initiative

Project name	Phase I accomplishments
<i>Corporate Responsibility Before Enron</i>	A search was made for institutions to collaborate in the project. Plans were made to use an interdisciplinary approach to teaching the Moral Theology and Business Ethics courses.
<i>Accounting</i>	An Intermediate Accounting course was converted from a traditional course into a hybrid course now using Blackboard.

Project name	Phase I accomplishments
<i>An Exploration of Pre-calculus through Scientific Workplace</i>	Pre-calculus student activities were developed using Scientific Workplace software. Pre- and post-quizzes were written for the electronic worksheets and entered into the Blackboard system.
<i>Biology 3350: Improving Pedagogical Methodology</i>	Course lecture materials were converted to PowerPoint slides and integrated into Blackboard.
<i>Incorporating Hyper-Interactive Teaching Technology in the Biochemistry Class</i>	Hyper-Interactive Teaching Technology (H-ITT) was installed and a quiz bank was developed for use with H-ITT.
<i>Inclusion of Web-based Technology into English 0990</i>	Pre- and post-test writing diagnostics and questionnaires were created. SMART Board presentations were planned for the first two weeks of class.

Table 3. Technology Infusion Projects Initiative accomplishments

Lessons Learned

The Phase I reports that were submitted by faculty members in Summer 2002 revealed that some project goals were a bit ambitious, particularly when faculty members aimed to integrate new software into the teaching and learning process. For example, faculty members who were familiar with Blackboard found, nevertheless, that it takes a great deal of time to develop the content for the course website. Similarly, organizing a Blackboard course website and learning to use the assessment features of the software were among the most time-consuming tasks.

The Center would like to do more to guide and assist faculty members through the two phases of this Initiative. Given the heavy teaching load, and University and departmental responsibilities, Xavier faculty members are often left with precious little time to think creativity and pursue ambitious projects, be they teaching- or research-related. We wish to continually provide just the right amount of input at the appropriate time to enable faculty to realize the full potential of their technology projects. During the Spring 2003 semester, the Center staff will examine more closely the role that we wish to have in supporting faculty technology projects.

Things to Come

The Center will work with Library faculty and staff members to develop a training workshop series that will be designed to provide greater support for faculty members who are using Blackboard, the University's Web course management system. We will aim to launch the series during the Spring 2003 semester.

Faculty members who have participated in this Initiative and completed Phase II have not yet completed a final evaluation of the project. In the Spring 2003 semester, the Center will begin a formal evaluation of the projects.

And finally, the Center recognized an opportunity to conduct research that is associated with the project titled, "Incorporating Hyper-Interactive Teaching Technology in the Biochemistry Class." The working title of this research project is, "Presentation, Student Performance, and Handheld Transmitters: A Test of the Component Display Theory." Dr. Gayna Stevens-Credle (Center for the Advancement of Teaching) and Dr. Nitza Rosenzweig (Chemistry) will conduct the research during the next several months.

Technology Workshops

Since September 2001, the Center has hosted a number of technology-related workshops including:

- SMART Board Training
- Introduction to the Electronic Classroom
- WebBoard Training
- E-Moderating: Developing and Managing On-Line Discussions
- How the Web Works: Using BBEdit
- How the Web Works: Using Homesite
- How the Web Works: Introduction to Html
- Teaching and Technology at XU: A Three-Part Series on Issues Related to Teaching with Technology

During the current academic year, we have concentrated our efforts on working with faculty one-on-one – a project model rather than a workshop model. The Rich Media Projects Initiative and the Technology Infusion Projects Initiative, in particular, have required an increasing amount of staff members' time. Consequently, we have reduced the number of technology workshops that we typically offer. We anticipate, however, continuing the "How the Web Works" series during Summer 2003.

Two Research Initiatives: The Technology Training Center and Student Information Technology Certification Program

A portion of the funds awarded with this technology and faculty development grant have been devoted to an intensive research and planning effort for a Technology Training Center and Student Information Technology Certification Program. Although we have exceeded the anticipated 7-month time period for the research and planning phase, we believe that the extra time that we are giving to this will result in a more thorough and comprehensive analysis of the issues and opportunities associated with a Technology Training Center and Student Information Technology Certification Program. The final reports for each of these proposed initiatives will be provided in the 2003 Interim Report. Here, we present a report on the status of the research and planning efforts. We have also included with this report the faculty, student, and alumni surveys, as well as the results of the faculty and student surveys.

Technology Training Center

In October 2002, the Technology Training Center Focus Group was constituted and included 10 members representing the teaching faculty, administration, Library faculty, staff, and students. The specific work of the focus group is described below in Table 4.

Research and Planning Efforts of the Technology Training Center Focus Group	Status
Compile and analyze the results of the student IT survey that was conducted in April 2002	Completed October 2002
Compile and analyze the results of the faculty IT survey that was conducted in August 2002	Completed October 2002
Obtain data relevant to the University 's computer competency assessment of freshmen students	Completed December 2002
Develop specific programmatic aims and activities of the proposed Technology Training Center	Not yet completed
Develop models and corresponding budgets for a Technology Training Center at the University	Not yet completed
Develop implementation plan(s) for each Technology Training Center model	Not yet completed

Table 4. Specific tasks of the Technology Training Center Focus Group and their status.

Student Information Technology Certification Program

In September 2002, the Information Technology (IT) Certification Working Group was formed. It is comprised of five faculty members, one administrator, one Library faculty member, two staff members, and two students. The initial work of the group was to collect and analyze data that will allow it to determine if there is an interest in and/or a need for a student IT certification program. The specific tasks and the status of each are presented in below in Table 5.

Research and Planning Efforts of the IT Certification Working Group	Status
Compile and analyze the results of the student IT survey conducted in April 2002	Completed October 2002
Compile and analyze the results of the faculty IT survey conducted in August 2002	Completed October 2002
Develop and distribute an alumni IT survey	Completed November 2002
Compile and analyze the results of the alumni IT survey conducted beginning in December 2002	Not yet completed
Review accreditation standards of the Commission on Colleges of the Southern Association of Colleges and Schools with an eye for those that have particular relevance to students' IT skills and knowledge	Not yet completed
Consider the findings and recommendations of studies (e.g., Digital Divide studies) and reports (e.g., National Academies of Science and Engineering, Association of College & Research Libraries) that address issues related to students' IT skills and knowledge	Not yet completed
Learn what other (liberal arts) institutions are doing to develop students' IT knowledge and skills	Completed December 2002
Examine currently available IT certification exams (e.g., Tek.Xam)	Not yet completed
Analyze the extent to which professional academic societies address issues relevant to certification of students' IT knowledge and skills	Completed December 2002
Review data from businesses and corporations that address issues related to certification of students' IT knowledge and skills	Not yet completed

Table 5. Specific tasks of the Information Technology Certification Working Group and their status.

Final Thoughts

From curriculum development projects such as *Corporate Responsibility Before Enron* to multimedia projects such as *Interactive Taxonomic Zoology* and *BibleDudes*, Xavier's faculty members are making substantive and creative uses of technology to improve the teaching and learning process. These efforts would not have been possible if not for the on-going support of the Andrew W. Mellon Foundation. The Foundation, through a previous faculty development and technology grant, was instrumental in laying the groundwork for these creative projects by supporting the Center for the Advancement of Teaching in general and the hiring of a multimedia artist in particular. The current grant directly supports the faculty members whose projects have been described in this report. In addition, it has enabled the Center for the Advancement of Teaching to provide expert technical, creative, and intellectual support to Xavier's faculty. We are grateful for this support and look forward to the months ahead when these and other technology projects are developed with the support of this faculty development and technology grant.