

## **Overview**

Xavier University's Center for the Advancement of Teaching (henceforth, the Center) has enhanced its plan to implement a faculty development and information technology program aimed at improving teaching, learning, and faculty and student scholarship through innovative and educationally effective uses of information technology. This proposal to the Andrew W. Mellon Foundation includes four sections:

- I. Recent successes and guiding principles
- II. Detailed description of the Teaching, Learning, and Technology Initiatives
- III. Budget
- IV. Sustainability of faculty development and technology initiatives.

### **I. Recent Successes and Guiding Principles**

In 1998, with the generous support of the Andrew W. Mellon Foundation, Xavier University implemented a plan to:

1. Provide training in the use of currently available information technologies and provide the experiences with these technologies necessary for faculty to develop applications to transform the teaching-learning environment
2. Provide expert support and consultation necessary for faculty to integrate information technologies into their courses
3. Establish collaborative networks of faculty and students to work together to integrate information technology into the curriculum and implement various levels of technology in and out of the classroom
4. Provide incentives for faculty to develop and implement Web-supported, Web-based courses, and other more innovative uses of information technology.

Since 1998, Xavier University through its Center for the Advancement of Teaching and Information Technology Center, has provided access to over 75 technology-related workshops, on-line conferences, and brown bag sessions to its faculty members. In every instance, such access provided faculty an opportunity to develop skills in new technologies, gain knowledge of the implications, challenges, and opportunities of teaching with technology, and discuss institutional and departmental goals vis-a-vis information technology. These efforts, plus those that have improved the university's information technology infrastructure, have had significant effects on faculty use of information technology in their professional lives in general and in teaching and learning in particular. The results of a survey conducted in 1998, and again in 2001, which measured, in part, faculty use of information technology, show significantly large increases in faculty who regularly use technology for collaboration, communication, and research and integrate these processes into classroom instruction (Table 1). Additionally, based on the 2001 survey results, significantly more faculty members incorporate Web-based instruction into their course work than did those in 1998 (Table 2).

<b>Response</b>	<b>1998 Frequency (Number of responses)</b>	<b>2001 Frequency (Number of responses)</b>
Agree	60.7% (54)	75.3% (55)
Disagree	39.3% (35)	24.7% (18)
Missing	< 1% (2)	-

Table 1. 1998 and 2001 technology survey data, question 3, "I regularly use technology for collaboration, communication, and research and integrate these processes into classroom instruction. (Significant; p=0.0477)

Response	1998 Frequency (Number of responses)	2001 Frequency (Number of responses)
Frequently	6.7% (6)	20.5% (15)
Occasionally	21.1% (19)	28.7% (21)
Seldom	26.7% (24)	21.9% (16)
Never	45.6% (41)	28.7% (21)
Missing	< 1% (1)	-

Table 2. 1998 and 2001 technology survey data, question 10, "Do you currently incorporate Web-based instruction into your course work?" (Significant;  $p=0.035$ )

The results of the surveys also indicate that there is a modest increase in the number of faculty members who regularly use CD-ROM or on-line research resources, e-mail, and electronic bulletin boards such as WebBoard in the classroom (Tables 3, 4, and 5, respectively).

Response	1998 Frequency (Number of responses)	2001 Frequency (Number of responses)
At least once a month	37.1% (33)	41.0% (30)
Less than once a month but at least in three months	15.7% (14)	21.9% (16)
Less than once in three months but at least once a year	14.6% (13)	16.4% (12)
Less than once a year	4.5% (4)	2.7% (2)
Never	28.1% (25)	17.8% (13)
Missing	< 1% (2)	-

Table 3. 1998 and 2001 technology survey data, question 26, "To what extent do you require your students to use research resources (e.g., CD-ROM or on-line resources)?" ( $p=0.5211$ )

Response	1998 Frequency (Number of responses)	2001 Frequency (Number of responses)
Frequently	24.7% (22)	31.5% (23)
Occasionally	20.2% (18)	24.6% (18)
Seldom	15.7% (14)	20.5% (15)
Never	38.2% (34)	23.2% (17)
Missing	< 1% (2)	-

Table 4. 1998 and 2001 technology survey data, question 27, "I \_\_\_\_\_ use e-mail as a part of classroom instruction." ( $p=0.2248$ )

Response	1998 Frequency (Number of responses)	2001 Frequency (Number of responses)
Frequently	5.6% (5)	12.1% (9)
Occasionally	7.9% (7)	12.1% (9)
Seldom	10.1% (9)	14.8% (11)
Never	75.3% (67)	60.8% (45)
Missing	< 1% (1)	-

Table 5. 1998 and 2001 technology survey data, question 28, “I \_\_\_\_\_ use bulletin boards as a part of classroom instruction.” (p=0.1919)

Clearly then, the current grant from the Foundation has increased faculty use of information technology in the classroom. At the same time, the University has successfully removed some barriers to incorporating computer technology into classroom instruction. The 2001 survey results indicate that equipment (*i.e.*, computers, servers) and technical support no longer are barriers, as they were in 1998, to faculty members’ classroom use of information technology (Tables 6 and 7, respectively).

Response	1998 Frequency (Number of responses)	2001 Frequency (Number of responses)
Strongly Agree	43.3% (39)	21.9% (16)
Agree	27.8% (25)	28.7% (21)
Disagree	21.1% (19)	26.0% (19)
Strongly Disagree	3.3% (3)	12.3% (9)
No Opinion	4.4% (4)	10.9% (8)
Missing	< 1% (1)	-

Table 6. 1998 and 2001 technology survey data, question 7, “Insufficient equipment (*i.e.*, computers, servers) is a barrier to my incorporating computer technology into my classroom instruction (excluding Web-based instruction).” (Significant; p=0.013)

Response	1998 Frequency (Number of responses)	2001 Frequency (Number of responses)
Strongly Agree	35.6% (32)	7.0% (5)
Agree	34.4% (31)	27.3% (20)
Disagree	24.4% (22)	43.8% (32)
Strongly Disagree	1.1% (1)	8.2% (6)
No Opinion	4.4% (4)	10.9% (8)
Missing	< 1% (1)	-

Table 7. 1998 and 2001 technology survey data, question 8, “Insufficient technical support (*i.e.*, technology administrators, *etc.*) is a barrier to my incorporating computer technology into my classroom instruction (excluding Web-based instruction). (Significant;  $p=0.00$ )

The workshops and other technology-related faculty development events have served as a foundation for faculty to plan and develop Web-based and other technology projects.

The current grant has supported over 60 faculty members in their development and implementation of information technology projects for the classroom, the community, and the world. (More detailed descriptions of these projects are found in the 1998-1999 and 1999-2000 interim reports that have been submitted to the Foundation. The reports are also on-line at:

<http://www.xula.edu/Administrative/cat/facdev/mellon/report99/index.html>  
<http://www.xula.edu/Administrative/cat/facdev/mellon/report00/index.html>

Several faculty members have also given presentations on their technology projects at national symposia and conferences.

In each of its first two years, the current grant has also supported 15 faculty members who provided technical support to their colleagues, thus helping to address what is commonly referred to as the “support service crisis.” The Faculty Technology Liaison Program supported faculty who in turn provided their colleagues assistance with Microsoft Office programs, e-mail, HTML, and the Web.

Finally, the current grant allowed Xavier University and its Center for the Advancement of Teaching to hire Mr. Bart Everson, a Multimedia Specialist now in the Center. Mr. Everson has made profoundly significant contributions to realizing the goals of this grant, as well as to clarifying, articulating, and meeting institutional needs as concerns information technology.

All of this is very encouraging news and a clear indication of the Institution's commitment to keeping stride with new information technology-based pedagogies and resources for teaching and research. Clearly, faculty at Xavier University have capitalized on the opportunities provided by the current grant from the Foundation to develop new technology skills, integrate information technology into the teaching and learning process, and engage in thoughtful discussion and examination of issues related to information technology and higher education. In short, the current grant has resulted in a solid footing upon which Xavier faculty members are now prepared and eager to reach new goals and broaden the impact of information technologies on teaching, research, and student learning.

There are, to be sure, new questions and issues that, taken collectively as a set of principles, will inform, to a large degree, the initiatives and direction of faculty development and technology for at least the next three years.

## ***Guiding principles***

### **Assessment**

The interim reports to the Andrew W. Mellon Foundation and, to a lesser degree, this summary of grant-related activities, indicate the degree to which the current grant has promoted, supported, and guided faculty use of information technology. The question remains, however, “What impact does information technology have on teaching and student learning?” The task before Xavier faculty members, like faculty members at most institutions of learning, is to develop the means to assess or measure this impact. Given this challenge, the proposed grant initiatives are linked to strategies to measure the impact of the technology on teaching and student learning.

To assess the progress and impact of both the specific technology initiatives and Center’s faculty development and information technology program throughout, the Center will call on two committees at Xavier: the Teaching, Learning, and Technology Roundtable (TLTR)—a group of administrators, faculty, and staff who share a vested interest in teaching with technology—and the University Faculty Development Committee—an elected group of Xavier faculty members.

The Center staff will work members of these committees to develop one or more assessment tools that will be administered annually to measure the grant initiatives’ impact on:

- Faculty teaching and classroom assessment methods
- Student learning
- Other faculty professional activities (*e.g.*, grant writing, scholarship).

Additionally, an assessment instrument will be administered annually that will measure the effectiveness of the Center in general and the Center's administration and implementation of the proposed grant initiatives in particular. Similar assessment tools, which were administered to all faculty members as recently as February 2001, included survey questions such as:

- As the focal point for faculty development activities at Xavier, does the Center meet your needs or expectations?
- Describe a project you would like to pursue if release time or a stipend were available to you.
- The opportunity to acquire basic competencies in the use of computers and related information technology is adequate.
- The support I received from Center staff on this project was helpful.
- Information regarding opportunities for travel was easily available.

During the 2002-2003 academic year, an outside consultant's evaluation of the Center's effectiveness and the impact of the proposed grant initiatives will be sought.

And finally, early in the fall 2003 semester—the final months of the proposed funding period—the Center will re-administer what we refer to as the “Southern Educational Foundation's Gateway 21 technology survey.” This survey has been administered at Xavier on two previous occasions—October 1998 and March 2001. The survey results have proven particularly helpful in measuring the extent to which information technology



changes and initiatives have impacted the institution. Additionally, the results have provided the Center with a better sense of faculty members' information technology needs and interests.

The results of these evaluations, as well as annual progress reports, will be shared with program officers of the Foundation and the Xavier University community.

### **Collaboration**

Many Xavier University faculty members are interested in working with multimedia, building interactive CD-ROMs or websites, and experimenting with digital audio or video. Such "media-rich" projects are ambitious but can also be very rewarding.

Yet often such projects do not get off the ground. Faculty members have other responsibilities that are usually more immediate, and technology projects in general and multimedia projects in particular are full of frustrations and potential pitfalls. A deliberate, structured approach is necessary in order to design and implement projects that are ambitious enough to be worth doing, yet realistic enough to actually be completed. Moreover, coupled with this structured approach is the need for collaboration—that is, collaboration among multimedia and instructional design specialists, and content experts. As noted in Xavier University's Teaching, Learning, and Technology Roundtable's position paper on information technology, "... (Faculty members) contemplating the adoption of technology in their courses need personnel support, and where necessary ... training, release time, or stipend support...."

Therefore, the proposed grant initiatives are designed so as to include structured collaboration and opportunities for assistance in planning, developing, implementing, and assessing the information technology projects.

## **II. Teaching, Learning, and Technology Initiatives**

This proposal describes the teaching, learning, and technology initiatives for which continued funding from the Andrew W. Mellon Foundation is requested. These initiatives will further support faculty and student uses of information technology in innovative, substantive, and educationally important ways.

### ***Faculty technology projects***

Faculty interest in using information technology in the classroom remains extraordinarily high at Xavier University. Of the faculty members who completed the technology survey in 2001, more than 80% indicated a moderate to high level of interest in incorporating computer technology in their classes. [In 1998, more than 88% of the surveyed faculty indicated this level of interest (Table 8).] Consequently, as with the proposal submitted in 1998, Xavier University requests support from the Foundation to enable faculty to plan, develop, implement, and assess technology projects.

<b>Response</b>	<b>1998 Frequency (Number of responses)</b>	<b>2001 Frequency (Number of responses)</b>
Very much	64.8% (57)	56.5% (39)
Somewhat	23.9% (21)	24.6% (17)
A little	9.1% (8)	14.4% (10)
Not at all	2.3% (2)	4.3% (3)
Missing	< 1% (3)	-

Table 8. 1998 and 2001 technology survey data, question 32, "To what extent are you interested in incorporating computer technology in your classes?" (p=0.5834)

Experimentation with new technologies is a part of the faculty development and technology puzzle -- only one part, but a new, sometimes confusing and sometimes

expensive part. If funded, these grant monies will be used to support faculty use of such information technologies as Blackboard (a Web-based course management system, for which a site license was purchased by the University), WebBoard (a Web-based conferencing system for which the University also has a site license), course websites, videoconferencing, JSTOR and other on-line databases, and discipline-specific courseware such as simulations, CD-ROMs, *etc.*

### **Implementation Process**

To implement this technology initiative, four steps will be followed; these are outlined in detail below. We plan to sponsor five “cycles” during the grant period; the cycles will overlap one another and each cycle involves two semesters or a summer and one semester. This long cycle will allow faculty members to develop, implement, assess, and, if necessary, redesign the technology projects. We anticipate supporting a total of 35 faculty technology projects during the grant period.

The initiative will be administered by the Center, with the Center's Instructional Design Specialist, Ms. Gayna Credle, as the primary coordinator. Xavier's TLTR will serve in an advisory capacity.

#### **Step 1: Request for Proposals**

The strategy used during the current grant period—namely, a request for proposals (RFP)—has proven successful in supporting faculty interested in planning, developing, and implementing information technology projects. The same strategy will be used during the proposed funding period. Specifically, the Center will issue requests for proposals to all university faculty members to plan, develop, implement, and assess a

broad range of information technology projects. Because we recognize that experience with educational technologies varies among faculty members, the RFPs will be tailored so as to provide opportunities and support to both novice and experienced users.

Examples of projects that the Center would support using the requested grant funds include:

- Incorporating e-mail discussion or an electronic conferencing systems such as WebBoard into an existing course
- Developing and using a course website or using a Web course management system such as Blackboard
- Using virtual office hours
- Using presentation software, simulations, CD-ROMs, and other courseware
- Conducting classroom research with a focus on effectiveness of technology in teaching and learning
- Integrating JSTOR or other electronic journals into a course.

### **Step 2: Evaluation of Proposals**

TLTR will review the proposals and rank them, with comments. In brief, the following components of each proposal will be evaluated:

- Goals, as they relate to the goals of the Teaching, Technology, and Learning Initiatives
- Design and development plan
- Implementation plan
- Assessment plan.

The evaluation and rank of each proposal will be passed to the Center, which will make the final determination on funding. Proposals deemed inappropriate by TLTR will not be funded.

### **Step 3: Faculty Collaboration**

The Center's Instructional Design Specialist, Ms. Gayna Credle, will convene monthly luncheons throughout the funding period with faculty who are involved in similar technology projects. These meetings will facilitate shared learning and collaboration by providing a venue for faculty and Center staff to explore pedagogical and technical issues, seek solutions to problems, and inspire faculty productivity and innovation.

### **Step 4: Evaluation of Projects**

After faculty complete the first semester (or summer) phase of the cycle, each project will be evaluated by TLTR in order to ensure that projects have progressed sufficiently before moving into the last phase, which we envision will, for most projects, involve implementation and assessment. TLTR's evaluation will provide faculty involved in the projects an opportunity to "hear" the voice of an outside reviewer before moving into the project's last phase.

At the conclusion of the funding period, TLTR will conduct a similar review of the projects, with greater emphasis on the degree to which they reached or exceeded their goals. The results of these evaluations will be made available to the Foundation and the Xavier University community.

### ***Faculty technology training workshops***

Consistent with faculty members' interest in using information technology in the classroom is their interest in receiving training and continued support to help them plan,

develop, and implement the technology. As in 1998, a majority of faculty members wish to develop their technology skills and knowledge by participating in workshops (Table 9). Despite the Institution's success at removing several barriers to faculty members' use of information technology in the classroom, faculty still consider insufficient personal training on computer technology to be a barrier to their classroom use of information technology (Table 10).

Response	1998 Frequency (Number of responses)	2001 Frequency (Number of responses)
Workshops provided by designated faculty/professional trainer	53.3% (48)	56.5% (39)
Self-paced tutorial	20.0% (18)	18.8% (13)
One-on-one instruction	26.7% (24)	24.6% (17)
Missing	< 1% (1)	-

Table 9. 1998 and 2001 technology survey data, question 31, "What is your first preference for receiving training in the use of computer technology?" (p=0.9223)

Response	1998 Frequency (Number of responses)	2001 Frequency (Number of responses)
Strongly Agree	12.2% (11)	9.5% (7)
Agree	34.4% (31)	17.8% (13)
Disagree	34.4% (31)	46.5% (34)
Strongly Disagree	14.4% (13)	16.4% (12)
No Opinion	4.4% (4)	8.2% (6)
Missing	< 1% (1)	-

Table 10. 1998 and 2001 technology survey data, question 9, "Insufficient personal training on computer technology (excluding Web-based instruction) is a barrier to my incorporating computer technology into my classroom." (p=0.1404)

Hence, a portion of the grant, if funded, would provide for such technology training workshops for faculty in all disciplines. The Center will continue to offer its "How the Web Works" workshop series—a series developed during the current funding period—modifying it as needed as the Web evolves and new information on teaching with technology emerges. Additionally, the Center is currently studying ways in which Linux

and other Open-Source code such as PHP, PostgreSQL, MySQL and other database management systems may be utilized by Xavier faculty. For example, two of the Design Document projects noted above (**The Haiku of Kobayashi Issa** and **No Easy Poets**) are particularly well suited to these applications.

Given the varying levels of faculty experience and expertise in the use of information technology, the workshops will be aimed at faculty at all levels, from the novice to the advanced user. Furthermore, we plan to identify discipline-specific programs and applications that are of special interest to faculty and hold workshops specifically designed to train faculty in the use of these applications. The technology workshops will be held throughout the academic year and summer months.

In addition to workshops that focus on hands-on training in technology, we will also host a series of shorter symposia and roundtable discussions about the pedagogical and professional impact of technology on teaching, learning, and scholarship. Possible topics for such symposia and roundtable discussions include: evaluation and assessment of technology-based materials and courses; promotion and tenure issues for faculty who create on-line and multimedia materials; asynchronous and synchronous on-line communication with students; and the effect of technology on student learning.

### ***Rich Media Projects Initiative***

Some call it "new media." Some call it "interactive multimedia." Buzzwords get thrown around recklessly, and marketing hype confuses matters further. There has been tremendous innovation in electronic media over the past decade. New tools for media

authoring have emerged and continue to develop, allowing for new approaches to traditional media and enabling the creation of new media forms. And the suspicion lurks:

*Do these developments represent an opportunity for educators?*

But the nature of this opportunity is unclear and, in practice, elusive. Finding that value and figuring out how to exploit it for the cause of education is what this initiative is all about.

### **What is Rich Media?**

Throughout this document, the term "rich media" is used as a convenient catch-all label for a certain type of media product. This should not be confused with "rich media advertising," which is a ubiquitous term in the marketing world.

Loosely, rich media products are websites and CD-ROMs that incorporate multimedia elements. Although this term is intentionally open-ended, it is helpful to define a number of characteristics. For the purposes of this initiative, rich media products:

- Are electronic in whole or in part
- Combine different types of media (*e.g.*, text, images, video, audio, animation, databases)
- Allow for some degree of interactivity on the part of the user
- Result from more ambitious projects than a faculty member might normally take on.

The last point is, perhaps, the most important.



## Aim and Goals

The aim of this initiative is to encourage experimentation and creativity with rich media among Xavier faculty (and others). Shepherding selected faculty through a three-phase process of planning, implementation, and evaluation will accomplish this.

## History

In March 2000, the Center for the Advancement of Teaching issued an RFP to Xavier University faculty members. In it, we asked faculty members interested in more ambitious multimedia projects to spend their summer working on a *design document* (see Step 3) with help from the Center staff. Some New Orleans Public Schools teachers and students also participated, and additional funding was provided through Xavier's Division of Education.

Six projects were selected, and by the end of the summer six design documents were completed, including:

- **Collage Culturel**  
A professor of languages planned a CD-ROM, featuring video clips, and interactive exercises to aid in the teaching of French.
- **The Haiku of Kobayashi Issa**  
A professor of English planned a website with a searchable database of the hundreds of haiku he has translated from the Japanese.
- **No Easy Poets**  
A professor of English planned a website with a user-contributed database of upcoming local literary events.
- **AlgebraJamN**  
A professor of Mathematics planned a website to support the activities of the AlgebraJamN project at Xavier, and provide project lessons for New Orleans high school teachers teaching algebra skills and high-end technology use.
- **Gumbo LALA**  
A group of New Orleans Public Schools teachers, already working on a more comprehensive project in collaboration with teachers in Los Angeles, planned a website as the focal point of their classroom activities.

- **New Orleans UnMasked**

A group of exceptional New Orleans Public Schools students planned a website about heroes in the local African-American community.

All of these design documents are available in their entirety on the Center's website at:  
<http://www.xula.edu/Administrative/cat/facdev/rich/design.html>

Of these six planned projects, three have been fully or partially implemented, as available funding permitted.

As a result of these experiences, the Center is proposing a *Rich Media Projects Initiative*.

The projects which this initiative hopes to foster are, by nature, challenging. A common rule of thumb for making a commercial multimedia CD-ROM is: *two years, twenty people, and two million dollars*. Although we don't anticipate projects on that level, this underlines the fact that planning is essential.

There are several steps we plan to take in order to assure the success of this initiative:

- **Allocation of funds:**

One reason that only half of the projects made it to "Phase II" is that we were nearing the end of the current grant period and did not have sufficient funds to give faculty stipends for moving into the next phase. We will resolve this issue by allocating funds in advance for all three phases, and only funding projects which we can support for all three phases (with the exception of projects which expect to find their funding elsewhere).

- **Swift transitions:**

It's not enough to simply have funding available for each phase. The Center must be prepared to make the necessary decisions and allocate funds in a timely fashion, so that the project may proceed from phase to phase quickly and maintain its momentum.

- **Standard of excellence:**

Approval to proceed to the next phase should be subject to a critical review of the progress so far.

- **Long-term commitment:**

Faculty need to understand at the outset that it may take a year or more to work through all three phases of their project.

- **Completion is a virtue:**  
Funding for each phase will be contingent upon completion of that phase whenever possible.
- **Project shepherding:**  
Each project will have one Center staff member (or other qualified person) assigned as the "shepherd." It will be the shepherd's responsibility to ascertain whether goals are being met and to keep the process moving along. Faculty will be required to have regular meetings with the project shepherd.

## **Process Overview**

The initiative will guide participants through three phases of development: planning, implementation, and evaluation. From an administrative standpoint, however, there are more than three phases. For clarity, these are referred to as steps rather than phases.

These are outlined in detail below.

We plan to sponsor three cycles of development that will overlap one another. Each cycle has been budgeted for four participants. Thus, we anticipate seeing twelve new individual projects to completion, less if group projects are funded. (We have also budgeted funds for the final phases of some projects already underway.)

No project should be funded unless funds are foreseen to be available to support that project through all three phases. This is a difficult prediction to make, since there may be great variation in project budgets. Advancement from one phase to the next is not a given, but is subject to review as outlined below.

The initiative will be administered by the Center for the Advancement of Teaching, with the Center's Multimedia Specialist as the primary coordinator. Xavier's TLTR will serve in an advisory capacity.

### **Step 1: Request for Proposals**

The Center will issue an RFP to all Xavier faculty and select faculty from the New Orleans Public Schools. The request will describe the types of projects the Center is encouraging and will indicate the three-phase nature of the development process. It is important for prospective participants to understand the time commitment that is required—namely, one year, possibly more. It is also important to make clear from the outset the type of support that is available for the projects and the criteria for advancement to the next phase. Successful applicants will receive strong support from the Center (in the form of release time and consultation) for the important planning phase of their project. As a part of the planning process, participants will identify additional funding sources if necessary (that is, if their project has a non-zero budget), as the Center can make no concrete guarantee of monetary support for project implementation.

### **Step 2: Evaluation of Proposals**

TLTR will review the proposals and rank them, with comments. Criteria for ranking will be highly subjective, but successful proposals should reflect the definition of rich media given above, and should be neither “too hard” nor “too easy.” TLTR may also reject certain proposals as wholly inappropriate.

This ranking information (with commentary) will be passed to the Center, which will make the final determination on funding. The guiding principle for the Center should be to fund the four highest-ranked proposals. Some variance from this rule may be necessary if group proposals are to be funded or if the Center's budget has changed; the Center will have the discretion to make such decisions. Proposals deemed inappropriate by TLTR will not be funded.

Each approved project will be assigned a project shepherd. The Center's Multimedia Specialist, Instructional Design Specialist, and School/University Liaison are likely candidates for project shepherds, but the Center may assign any qualified person. The Center will notify the prospective participants of the results, including the comments from TLTR and their assigned project shepherd and other details of support if approved. Rejected applicants will be encouraged to revise their proposals and resubmit them again at the next cycle. If fewer than four projects were approved, the Center may give an option for rapid re-submission.

### **Step 3: The Planning Process**

From the point of view of the participants, planning is the first phase of their project. We anticipate that it will be the most intensive phase of all, and so we have budgeted the bulk of support here. Most Xavier faculty will need one-quarter release time for one semester (or a summer stipend) in order to devote adequate attention to the planning process. The main activity for planning is the writing of a design document. A period of research may be needed before the writing begins. The design document itself is composed of a number of clearly defined elements:

- **Executive Summary:**

A concise (just a few sentences) overview of the project that communicates the basic concept

- **Statement of Purpose:**

Motivation, intended use, importance. *Why are you doing this? What will you do with it when it's done? Why does it matter?* Articulate the standards by which the success of the project may be measured.

- **Content Outline:**

A logically organized, hierarchical outline of the project's content

- **Experiential Flowchart:**

A chart depicting the user's experience—how he or she can navigate through the content

- **Interface Mockups:**

Annotated sketches of key elements and screens

- **Media Inventory:**

An exhaustive, detailed list of all the media necessary for the project. Account for copyright issues, if any.

- **Skills Assessment:**

What do you know and what do you need to know to accomplish the project?

- **Implementation Plan:**

A detailed plan which spells out how the above will be accomplished. *Who does what, and when?* Include a narrative summary, schedule, and budget. The budget should follow Xavier University's budget lines. Note that great projects are not necessarily expensive! Participants should plan to take full advantage of the Center's resources that are available for project implementation and represent significant value. For budgets greater than zero, participants should identify possible alternative sources for funding. Note that the Center can make no advance guarantee of full or even partial support for any project.

- **Evaluation Plan:**

A detailed plan for evaluating the finished product according to the standards articulated in the statement of purpose. Include a narrative summary, a schedule and a budget. Guidelines for evaluation budgets are the same as for implementation budgets.

The Center's Multimedia Specialist will provide broad guidance for all the projects, but the project shepherds will be involved with the details of writing the design document. And of course, the participants themselves will do the actual writing and the bulk of the work in this phase.

One semester (or one summer) should be sufficient for the completion of the design document. The Center will set a deadline at the beginning of the period, but participants may request an extension with the understanding that no further monetary support will be available for the project until the design document has been finished. At the end of the planning process, the completed design document will be posted on the Center's website and submitted to TLTR.

#### **Step 4: Design Review**

The design document created during the planning process stands on its own and will be evaluated by TLTR. Applicants with implementation budgets of over \$500 are *strongly* encouraged to seek additional sources of funding in a timely fashion. TLTR will approve or disapprove design documents for implementation, with comments, based on their merits. A good design document is one that is clear, shows attention to detail, has scholarly and/or educational value, is original or innovative in its approach to the subject matter, and sets forth realistic goals for implementation and evaluation. TLTR will pass their decisions on to the Center. Note that each design document includes its own budget request. The Center will have the discretion to approve funding at less than the full amount requested if funds are limited.

Funds that are approved will be of two types. Operational funds may be granted to meet expenses incurred during implementation. This money will be awarded at the beginning of the funding period. An incentive stipend will be granted whenever possible. This money will be awarded at the end of the funding period, contingent upon the successful completion of the implementation phase. The Center will notify participants of their status and pass along the comments from TLTR. Participants with partially funded projects may seek additional funds from other sources, proceed with a reduced budget, or simply opt not to continue the project.

#### **Step 5: The Implementation Process**

Implementation is the middle phase for participants. Details of project implementation will have been spelled out in the design document and may vary substantially from project to project. Even the time frame for implementation may vary, so that some

projects may be implemented in a single semester, while others may take an entire year or longer. Upon completion, the finished product will be submitted to TLTR for review.

### **Step 6: Implementation Review**

TLTR will review the completed product, comparing it to the original design document, and determine whether the implementation is satisfactory or unsatisfactory, with critical commentary. This information will be passed on to the Center, which will in turn inform the participants. Unsatisfactory projects will receive no further monetary support from the Center. Participants with satisfactory projects will receive a stipend and a "green light" to proceed to the next phase. The Center will determine what support will be available for the evaluation phase, referencing the evaluation plan from the participant's design document.

### **Step 7: The Evaluation Process**

This marks the beginning of the final phase for participants. As with implementation, details of project evaluation will have been spelled out in the design document and may vary substantially from project to project. Upon completion of the evaluation process, the participant will summarize the results in writing, including a plan for revision of the product if deemed necessary. This report will be submitted to TLTR for review.

### **Step 8: Evaluation Review**

TLTR will review the evaluation results and determine whether the evaluation was satisfactory or unsatisfactory, with critical commentary. This information will be passed on to the Center, which will in turn inform the participants. Participants with satisfactory evaluation results will receive a stipend. The Center will determine what support will be available for revisions, if any.



### **Step 9: Revisions**

The final phase for participants is completed here, in the revision of the rich media product. Revisions may be major or minor. In a few rare cases, there may be no revisions at all. The exact revisions will have been determined earlier in the evaluation process.

### **Step 10: Evaluating the Initiative**

Evaluation of this initiative will be a continuing effort. We anticipate using, at minimum, a survey that faculty members involved in the initiative will complete at the end of each phase in the cycle.

### ***Research and Planning for a Technology Training Center and IT Certification for Students***

In recent months, faculty, staff, and students who serve on Xavier University's Strategic Planning Committee for Information Technology have discussed establishing a technology training center and information technology certification program for students. The discussion has identified a number of compelling reasons to consider, in particular, the possibility of a program of certification in information technology (IT) for Xavier University students. They include:

1. The Commission on Colleges of the Southern Association of Colleges and Schools (SACS) is reviewing their accreditation standards. A number of the new standards make such a program a veritable necessity.
2. We live in an Information Age, and rapid changes in the development of IT bring a new set of requirements for full participation in civil society. One might refer to this

as "IT literacy."<sup>1</sup> Xavier University graduates would benefit from a concerted IT training effort, in keeping with the University's mission of preparing students to assume "roles of leadership and service" in society.

3. The University has already indicated a concern in this general area by implementing a computer competency exam. A more comprehensive program could address this concern and others.
4. Current IT training efforts at Xavier are not as well coordinated or as comprehensive as they need to be. The training efforts of the Information Technology Center are largely geared toward staff, while the efforts of the Center for the Advancement of Teaching are largely geared toward faculty. Students have no formal training programs available--further evidence that Xavier University could benefit from the type of program outlined below.

The discussion has focused, in part, on the question, "What might an IT certification program look like?" Here are some general observations:

1. The program would need to focus on general IT literacy or competence.
2. At the same time, the program should focus on concepts and problem solving.
3. The program must be vendor-neutral.
4. The program would need to be appropriate for liberal arts majors at a liberal arts school.
5. The program should serve a two-fold purpose: To help students function in their classes, and to help them succeed in the working world after they graduate.

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<sup>1</sup> For an excellent consideration of the value and definition of IT literacy, see:  
<http://www-bcs.mit.edu/~stephen/it.literacy.html>

## **A Technology Training Center**

The ideal infrastructure for such a certification program might be provided through a Technology Training Center (TTC), a physical space from which faculty, students, and staff members are helped by some of the shared resources of the library, pedagogy experts, and technology professionals. Such a unit would coordinate the existing training efforts already underway in various units; it would be a place for the entire university community to learn about using information technology.

The success of such a unit would depend upon collaboration between the Computer Science and Computer Engineering Department, Library, Information Technology Center, Center for the Advancement of Teaching, and other units. Note that this unit would be different from these other units in that it would focus exclusively on knowledge-based support.

## **Recommendation**

Xavier University's Strategic Planning Committee for Information Technology is giving serious consideration to recommending that a certification program be established at the University. The information above is taken from a subcommittee report that is reflective (in principle) of the probable direction in which the University will be encouraged to move in establishing such a program. This subcommittee of the Strategic Planning Committee has recommended the formation of a TTC as described above, charged with the development of a modular, elective, non-credit certification program.

Considerably more planning is needed to form a TTC and a Program of Certification in Information Technology, and this process requires the collaboration of a number of different units on campus.

Therefore, a portion of the proposed grant funds would be used to support an intensive 7-month research and planning phase for a Technology Training Center and a Program of Student Certification in Information Technology.

### **Process Overview**

A working group whose task it will be to research the feasibility of and draft a plan for implementing a TTC and an IT Certification Program for students will be formed and begin its work during the fall 2001 semester. The committee will include administrators, faculty, staff, and students with representation from the Center for the Advancement of Teaching, Computer Science/Computer Engineering Department, Information Technology Center, Library, and TLTR. Two faculty members will receive release time during the spring 2002 semester and stipends during summer 2002 in order that they may devote substantial time and effort to this project. A final report will be submitted to the Dr. Norman Francis, Xavier's president, and the entire University community. Additionally, the report will be made available to the Foundation.

### III. Budget

The proposed budget to support the Teaching, Learning, and Technology Initiatives is found in Table 11. A detailed budget for one of the four initiatives—the research and planning phase for the Technology Training Center and Student Information Technology Certification Program—is found in Table 12.

<i>Budget item</i>	<i>September 1, 2001 - August 31, 2002</i>	<i>September 1, 2002 - August 31, 2003</i>	<i>January 1, 2002 - July 31, 2002</i>	<i>August 1, 2003- December 31, 2003</i>	<i>Total cost</i>
<b>TTC and Student IT Certification program research and planning*</b>			\$21,750.00		\$21,750.00
<b>Administrative and staff support:</b>					\$64,225.00
<b>Faculty release time</b>					
Rich Media Projects Initiative	\$23,500.00	\$23,500.00			\$47,000.00
Faculty technology projects	\$17,625.00	\$35,250.00			\$52,875.00
<b>Fringe benefits</b>					\$26,256.00
<b>Faculty stipends</b>					
Rich Media Projects Initiative	\$12,000.00	\$10,500.00		\$4,000.00	\$26,500.00
Faculty technology projects	\$11,000.00	\$25,000.00		\$6,500.00	\$42,500.00
<b>Faculty travel</b>	\$4,000.00	\$6,000.00		\$1,500.00	\$11,500.00
<b>Consultants' honoraria</b>	\$3,000.00	\$4,500.00		\$1,500.00	\$9,000.00
<b>Consultants' travel</b>	\$2,000.00	\$3,000.00		\$1,000.00	\$6,000.00
<b>Computers and accessories</b>	\$7,000.00	\$10,000.00			\$17,000.00
<b>Computer software and supplies</b>	\$2,500.00	\$3,500.00		\$2,500.00	\$8,500.00
<b>Office supplies</b>	\$2,500.00	\$3,000.00		\$1,644.00	\$7,144.00
<b>Food and catering</b>	\$2,500.00	\$3,500.00		\$1,500.00	\$7,500.00
<b>Memberships</b>	\$750.00	\$750.00		\$750.00	\$2,250.00
<b>TOTAL</b>					<b>\$350,000.00</b>

Table 11. Proposed budget for the faculty development and technology initiatives at Xavier University.

\*A detailed budget for the TTC and Student IT Certification program research and planning phase is found in Table 12.

<i>Expense</i>	<i>Spring 2002</i>	<i>Summer 2002</i>	<i>TOTAL</i>
Faculty stipends		2 @ \$2,500	\$5,000.00
Faculty release time	2 @ \$6,250.00 each	-	\$12,500.00
Travel	\$3,000.00	-	\$3,000.00
Food and Catering	\$500.00	\$500.00	\$1,000.00
Office supplies (books, etc.)	\$250.00	-	\$250.00
<b>TOTAL</b>			<b>\$21,750.00</b>

Table 12. Detailed budget of the research and planning phase for the Technology Training Center and Student Information Technology Certification Program.

#### IV. Sustainability of faculty development and technology initiatives

The University's commitment to faculty development and the Center for the Advancement of Teaching is exemplified by its support of Center staff salaries. During the proposed grant period (September 1, 2001 through December 31, 2003), the University will have primary responsibility for staff salaries (Table 13).

<b>Source of funding</b>	<b>Administrative and staff support (approximate percentage)</b>		
	<b>September 1, 2001- August 31, 2002</b>	<b>September 1, 2002- August 31, 2003*</b>	<b>September 1, 2003- August 31, 2004*</b>
Xavier University	\$ 254,797 (89%)	\$ 262,796 (89%)	\$ 304,310 (100%)
Andrew W. Mellon Foundation	\$ 31,575 (11%)	\$ 32,650 (11%)	-
The Bush and William and Flora Hewlett foundations	\$ 469 (<1%)	-	-
<b>TOTAL</b>	<b>\$ 286,841 (100%)</b>	<b>\$ 295,446 (100%)</b>	<b>\$ 304,310 (100%)</b>

Table 13. Xavier University and foundation support of the Center's administrative and staff salaries, September 1, 2002 through August 31, 2004. \*Based on a 3% increase.

The Center's total operating budget for the 2000-2001 academic year was \$589,488, of which \$300,000 was provided by The Bush and the William and Flora Hewlett foundations (\$150,000) and the Andrew W. Mellon Foundation (\$150,000). The University also committed funds for programmatic (non-salary) activities (3% of the total 2000-2001 operating budget). Finally, it should be noted that the University provides for

the Center's facilities, Internet connections, and information technology network and user technical support.

As indicated in Table 13, during a portion of the 2001-2002, a grant from The Bush and William and Flora Hewlett foundations provides only modest support of the Center.

Beginning January 1, 2002, no other grant monies, other than the proposed grant from the Andrew W. Mellon Foundation, will support faculty development and technology initiatives at Xavier's Center for the Advancement of Teaching.

In the absence of any grant support, the University will continue to support Center staff salaries. In turn, Center staff members will continue their work at improving faculty and student scholarship, and teaching and student learning. They will, for example, continue to offer workshops, and consult with and assist faculty members. Through the diverse array of faculty development and information technology opportunities provided by the University and its Center for the Advancement of Teaching, the initiatives that have been supported by this grant from the Andrew W. Mellon Foundation will continue, albeit to a lesser degree. Xavier's faculty members are committed to deep student learning, and faculty and student scholarship by means of innovative and effective uses of information technology.

Xavier is implementing an ambitious plan to increase endowments for scholarships and faculty salaries, expand and renovate its facilities, construct new student housing, and upgrade information systems, network capability, and instructional technology. There

are many faces to faculty development, which include support in pedagogy, technology, scholarship, and sustaining a supportive campus culture. Xavier's faculty members have a clear focus on its mission, due in great measure to the University's commitment to and support of faculty development.

Xavier's most focused and substantive experiences with faculty development and technology began in earnest 1994 with the founding of the Center for the Advancement of Teaching. As a result of generous faculty development and technology grants from the Andrew W. Mellon Foundation, Bell South Foundation, Apple Computer, Inc., and The Bush and William and Flora Hewlett foundations, Xavier has made profound progress toward integrating information technology into the fabric of the institution—both academically and administratively. What started as a faculty-led, grass-roots commitment to faculty development has since matured into a broad range of initiatives aimed at improving teaching and student learning, and supporting faculty and student research through innovative and effective uses of information technology. Xavier's administration has a deep commitment to faculty development and the Center, and Xavier's faculty members have a strong voice in directing the future of faculty development at the institution.