

**RESULTS OF THE 2004  
LEARNING TECHNOLOGY COMMITTEE  
FACULTY SURVEY**

Ruth Harris-Barnett  
Chair, Learning Committee  
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# **RESULTS OF THE 2004 LEARNING TECHNOLOGY COMMITTEE FACULTY SURVEY**

## **Executive Summary**

In April 2004, the Learning Technology Committee conducted an on-line survey of UCSC faculty in order to gain a clearer understanding of their needs and interests related to use of learning technology in their courses. The purpose of the survey was not to evaluate current services, but rather to find out how faculty are currently using technology in their teaching, how they envision using technology in the near future, and what support and resources would be necessary in order to achieve that vision.

Among the key findings:

- Ninety faculty members responded to the survey, mainly representing those already comfortable using technology.
- Overwhelmingly, the respondents said that, not only are they using technology in their teaching currently, but they are interested in using more (72%).
- Survey respondents are using a range of the technology tools currently available to them in their teaching, most commonly posting resources on the web or hosting a course web site.
- They indicated strong interest in branching out into newer activities such as student collaborative projects and on-line quizzes or assignment submission.
- Student access to resources such as documents, images, and databases is a high priority for faculty.
- In addition, faculty hope technology will make learning activities more engaging, provide assistance for struggling students, facilitate course management, as well as a range of other outcomes.
- A small but significant portion (22%) indicated that, although they are using technology in teaching now, they are not interested in increasing their use. The most commonly cited reason by far was a lack of time (50% of those who answered the question).
- Faculty would like assistance with such tasks as web design, digital media development, database development, and understanding how students learn in a digital environment.
- Most respondents would like multiple kinds of support available to them, including one-on-one consultation, workshops, and on-line resources.

## **Summary of Survey Results & Analysis**

### **Description of the survey**

The Learning Technology Survey was available on-line for UCSC faculty from April 1, 2004 through May 5, 2004. It included a total of 20 questions about faculty's current learning technology (LT) use, interest in future LT use, and anticipated need for LT support and resources. Space was provided for respondents to describe a specific LT project they would like to pursue and to request a call from someone to discuss how the project might be supported. At the end of the survey, there was a space for general comments or concerns about learning technology at UCSC. (Complete survey results may be obtained by e-mailing [cte@ucsc.edu](mailto:cte@ucsc.edu).)

### **About the respondents**

Ninety faculty members responded to the survey, representing all five academic divisions: Arts 16%; Engineering 19%; Humanities 13%; PB Sciences 21%; Social Sciences 31%. (*Note:* Throughout this summary, percentages are rounded to the nearest whole number.) There was no clear distinction in terms of years of faculty experience. As might be expected, the survey attracted faculty who are already using technology. When asked,

- **Select the ONE statement that best describes your level of expertise,** most identified themselves either as “highly competent technology users” (37%) or as “comfortable with technology” (51%); 12% feel “uncomfortable with technology” but are willing to learn; only one respondent said he/she “avoids technology.”

When asked about their attitude specifically to learning technology, responses reveal a faculty willing to move forward selectively, but not aggressively.

- **Select ONE or MORE statement(s) that describes your attitude to teaching/learning technology**

By far the most frequently selected attitude choice (70%) was “I think technology could enhance learning in my discipline if carefully selected.” The next two most frequently-selected were, “I think increased use of LT is inevitable” (49%), and “I think LT can provide greater access to high-quality education for students not currently being reached” (33%). Only 14% think LT will revolutionize learning in their discipline; on the other hand, only 3 individuals said that LT detracts from learning. (See Appendix, Table 1.)

### **Current use of and interest in learning technology**

The survey asked respondents to indicate current use of, and interest in, a list of specific LT tools.

- **For each of the following, please indicate whether you have used it in your teaching in the past 2 years, are interested in using it in the future, or neither.**

Results show that this group of faculty is using a range of the technology tools currently available to them in their teaching. The two most frequently-used tools are on-line resources such as lecture notes, readings, images (76%), and a course web site (74%). Also frequently used are PowerPoint in class (51%) and projecting digital images or multimedia in class (52%). Many are using other tools (possibly through WebCT) such as an on-line discussion forum for students (31%), electronic grade book (37%). (See Table 2.)

Two tools with a relatively low level of current use, but a high level of interest, are student collaborative projects (40% are interested in using them) and on-line quizzes or assignment submission (39% interested). Other areas of interest are computer simulations (30%), discussion forum (29%), and electronic grade book (26%). The tool which the most respondents indicated they are *not* interested in using is web-casting (51% said they are not interested), although 19% are interested in using web-casting.

- **Which best describes your desire for using technology in your teaching in the near future?**

Overwhelmingly, the respondents said that, not only are they using technology in their teaching currently, but they are interested in using more (72%). However, a small but significant portion (22%) indicated that, although they are using technology in teaching now, they are *not* interested in increasing their use. The 24 individuals who indicated they are either not currently using

technology in teaching, or are not interested in increasing their use answered questions about the reasons for this. The most commonly cited reason by far was a lack of time (50% of those who answered the question).

### **How faculty envision using technology in teaching**

- ***Which best describes the way(s) you envision using technology in your courses, if the needed resources were available?***

Very few survey respondents (7%) envision teaching completely on-line courses. More commonly, they would use technology to supplement current learning activities (87%), use the technology in the classroom (40%), replace some current homework assignments with technology use (40%), or perhaps replace only a portion of in-class time with technology-mediated learning (21%).

- ***Which, if any, of the following possible outcomes do you hope to achieve through using technology in teaching?***

The most commonly cited outcomes faculty hope to achieve through LT are to provide access to new resources (81%) and make learning tasks more engaging (69%). Notably, all of the possible outcomes listed in the survey were selected by a significant number of respondents, with the lowest number of responses for “increasing opportunities for student writing” (21%). This suggests that faculty see a great variety of potential in LT, from the facilitation of course management tasks, to increased interaction among students. (See Table 3 for a complete listing.)

### **How learning technology is developed and supported**

- ***For learning technology you have used in your courses, who at UCSC participated in its development, from initial idea to final technical implementation?***

Many different people on campus contribute to LT projects currently in use at UCSC, with most projects having two or more contributors. When asked who had participated in the development of the technology they use, nearly all respondents (92%) said they had themselves participated. However, only 29% had developed or implemented the technology by themselves. The average number of collaborators for any one respondent was slightly more than 2. Collaborators listed include the Faculty Instructional Technology Center (had worked with 31% of respondents), Media Services (22%), a faculty colleague (18%), and divisional or departmental computing staff (17%). A few faculty have collaborated with others, such as a graduate or undergraduate student.

- ***Have you received the assistance you need with development/ implementation?***

Most faculty said they have received some support for their LT projects, although many were looking for more support. The largest group (36%) said they have received as much assistance as they need; 32% have received some but could use more, 12% want assistance and haven't received any, while 17% said they don't need assistance.

- ***For which of the following are you likely to need assistance?***

Faculty would like support for a wide range of activities, from simply creating web content (53% of the sample asked said they would either like assistance learning to do this themselves, or would like someone else to do it, or both), or digital media (49%), to creating course-related databases (35%) or simulations (20%). Notably, 34% said they would like assistance with understanding how students learn in a digital environment. (Table 4)

- ***Indicate the type of assistance/support that would be most helpful to you in implementing the kinds of technology you envision using.***

There was no clear preference for how assistance should be offered, with most respondents requesting a variety of service models, from one-on-one tutorials, to workshops, to working with instructional designers. On average, respondents indicated 2.8 different things they would like assistance with, and indicated they would prefer 2.7 different kinds of support.

### **Specific projects**

- ***Do you have any projects in mind that will incorporate technology in your teaching? If so, please describe:***
- ***Describe the kinds of resources or support you would need in implementing this project.***

The most fascinating and revealing results of the survey are to be found in the specific projects faculty described which they would like to implement in the near future. Most of these projects are quite achievable with tools and services currently available at UCSC. They include such things as incorporating film clips with a PowerPoint presentation, or using course management tools such as those in WebCT. These descriptions demonstrate that faculty have a clear picture of what technology can do and how they would use it. For example, “a course web site for my large intro lectures from which students can view deadlines and download assignments” and “I’m interested in looking into ways for students to post common data on the web for sharing, as well as for submitting assignments.”

A few of the projects faculty described are more involved and more visionary. While they would require somewhat more resources than the previous category, they would also likely result in new learning environments which could serve as models for other courses and instructors. These more involved projects include complex simulations, on-line field guides, and computer-mediated language learning.

Of the 27 faculty who described a specific project, 16 provided their contact information and indicated they would like someone to call them about their project. It is hoped that the follow-up on this aspect of the survey will result in a number of these projects being implemented. Further, 32 individuals indicated they would be willing to discuss their experience with other faculty or provide a demonstration.

### **Freeform comments**

- ***Are there any other questions or concerns about technology in teaching and learning that you would like to express?***

Respondents used this space for a variety of purposes. Some pointed out what they feel are holes in current services (e.g., better support needed for Linux operating system, less-than-adequate equipment available in classrooms). Others elaborated on the kinds of support they would prefer. For instance, one noted that information easily available on the Web was more useful than periodic announcements. Another, who described him/herself as somewhere between uncomfortable and comfortable with technology, remarked, “The more forthcoming, enthusiastic, and available campus learning-technology staff are able to make themselves to people like me, the more likely I am to expand my repertoire of useful technological skills.”

## Discussion

Respondents to this survey represent a strong core of faculty comfortable with the idea of learning technology, and interested in increasingly using it in their courses. The average respondent indicates she/he:

- is currently using 4 different technology tools,
- is interested in using 2.6 more,
- hopes to achieve an average of 5 different outcomes through using technology in teaching,
- is looking for 2.7 different kinds of support.

Thus, faculty appear to see potential in a broad array of technology applications, including those they have yet to adopt.

Despite this broad range of interests, a few clear priorities did emerge. Most faculty (81%) see “access to resources not previously available” as an important outcome of learning technology. In keeping with this priority, the activities for which faculty most anticipated needing assistance are publishing content on web pages, developing digital media for web or classroom presentation, and developing course related databases. In addition to providing faculty assistance, the campus can support this priority through maintaining adequate server capacity and facilitating access to information sources external to the campus.

The second most frequently selected outcome (69%) was to “make learning tasks more engaging.” It is worth noting as well that 34% indicated they would like assistance “understanding how students learn in a digital environment.” Instructional design services, provided by staff trained in this area, could assist faculty in developing uses of LT that engage students effectively.

Not surprisingly, much of the learning technology faculty express interest in is that most readily available through programs the campus supports. Faculty are apparently aware of these tools, and can imagine how they might be used, although in many cases they have yet to follow through. It is unclear whether some faculty are still not aware of the assistance available to them through offices such as the FITC and Media Services, or have been reluctant to pick up the phone and ask for help. It is likely that some additional outreach from campus IT staff would move these faculty from the stage of envisioning a project to actually implementing it. Faculty time is clearly in issue, with support services needing to be carefully matched to faculty time constraints. Preferences reflected in this survey indicate a need to maintain various kinds of support services, including individual consultants, workshops, and on-line resources.

A sizable minority of faculty did identify LT interests outside of the mainstream set of course management tools. For instance, a surprising 27 respondents from across the academic disciplines indicated a desire to develop computer simulations. Likewise, among the projects respondents described, approximately seven represent significant changes to the current learning environment. These more visionary projects could have a considerable impact, but would likely require resources beyond the expected level of faculty technology support. Some could potentially be pursued by means of grants. Regardless of the source of funding, collaboration between campus IT professionals and faculty would be key to bringing these projects to fruition.

## Appendix

**TABLE 1** “Select ONE or MORE statement(s) that describes your attitude to teaching/learning technology:”

Choice	Count	Percent of Total Sample
I think technology has the potential to revolutionize learning in my discipline.	13	14%
I have heard about some exciting LT projects in my discipline and would like to become involved.	10	11%
I think technology could enhance learning in my discipline if carefully selected.	63	70%
I think LT can sometimes enhance learning, but I'm skeptical about its potential in my discipline.	7	8%
I think LT can provide learning equivalent to, but not better than, learning students are currently achieving in my discipline.	5	6%
I think LT can provide greater access to high-quality education for students not currently being reached.	30	33%
I think increased use of learning technology is inevitable.	44	49%
I think learning technology generally detracts from learning.	3	3%

**TABLE 2** “For each of the following, please indicate whether you have used it in your teaching in the past 2 years, are interested in using it in the future, or neither.”

Topic	Have Used	Have Not Used, But I Am Interested	Have Not Used, Am Not Interested	Not Answered
Course Web Site	67 (74%)	11 (12%)	3 (3%)	9 (10%)
PowerPoint presentations in class	46 (51%)	17 (19%)	16 (18%)	11 (12%)
Digital Images, multimedia in class	47 (52%)	19 (21%)	12 (13%)	12 (13%)
Resources available on-line (lecture notes, readings, images)	68 (76%)	10 (11%)	3 (3%)	9 (10%)
On-line discussion forum for students	28 (31%)	26 (29%)	24 (27%)	12 (13%)
On-line quizzes or assignment submission	21 (23%)	35 (39%)	23 (26%)	11 (12%)
Electronic grade book	33 (37%)	23 (26%)	23 (26%)	11 (12%)
Student collaborative projects (technology-mediated)	13 (14%)	36 (40%)	28 (31%)	13 (14%)
Computer simulations	22 (24%)	27 (30%)	26 (29%)	15 (17%)
Web-casting	7 (8%)	17 (19%)	46 (51%)	20 (22%)
Other	10 (11%)	11 (12%)	21 (23%)	48 (53%)

**TABLE 3 “Which, if any, of the following possible outcomes do you hope to achieve through using technology in teaching?”**

Choice	Count	Percent of Sample Asked*	Percent of Total Sample
Facilitate student-student interaction.	35	50%	39%
Facilitate student-instructor interaction.	40	57%	44%
Provide access to resources not previously available.	57	81%	63%
Make learning tasks more engaging.	48	69%	53%
Provide assistance to struggling students.	40	57%	44%
Provide increased opportunities for student writing.	15	21%	17%
Improve/speed instructor feedback to students on their work.	33	47%	37%
Increase ease of assignment submission.	31	44%	34%
Facilitate course management tasks (e.g., record-keeping).	38	54%	42%
Other (describe):	8	11%	9%

**TABLE 4 “For which of the following are you likely to need assistance?”**

Choice	Count	Percent of Sample Asked*	Percent of Total Sample
Understanding how students learn in a digital environment	22	34%	24%
Making content available on web pages (technical assistants perform directed work)	32	49%	36%
Learning to publish content on the web (learn to do this myself)	27	42%	30%
Using course management tools	22	34%	24%
Learning to use presentation software	12	19%	13%
Developing digital media for web or classroom presentation (audio, video, webcasting)	32	49%	36%
Developing complex simulations	13	20%	14%
Developing course related databases	23	35%	26%
Other (describe):	10	15%	11%

\*Only those respondents who indicated an interest in using learning technology in the future were directed to these questions.