Preface to the Report on the 2001 Survey of Stanford Faculty IT Use and Needs

presented by the
Committee on Computing Infrastructure and Academic Needs
at Stanford University

Overview of the Committee’s Activities

In the Fall of 2000, Provost John Etchemendy initiated a campus-wide needs assessment review. Three task forces were created to identify outstanding needs related to

- schools and departments,
- inter-disciplinary programs, and
- University-wide infrastructure.

Provost Etchemendy also appointed a subcommittee of the University-wide infrastructure task force, with the purpose of examining the University’s needs for information technology resources and support. This more specialized group, the Committee on Computing Infrastructure and Academic Needs, convened for the first time in January, 2001 and concluded its efforts in early May.

The formal charge of the Committee on Computing Infrastructure and Academic Needs was to identify unmet information technology resource needs across Stanford’s research, instruction and administrative activities and to prioritize those needs and deliver a set of specific financial targets for fundraising opportunities. The Committee’s activities included a needs assessment spreadsheet, meetings with faculty focus groups, and a faculty survey. The Committee completed its charge and, at the end of May 2001, submitted a detailed report on its activities and findings to Provost Etchemendy.

Attached to this overview are a diagram representing key findings of the faculty survey and a summary report on the survey’s results.

The Committee was made up of seven members of the Stanford community:

- Professor David Brady, Political Science/GSB/Hoover Institution
- Michael Keller, University Libraries & Academic Information Resources (SUL/AIR)
- Professor Monica Lam, Computer Science
- Jane Marcus, Information Technology Systems and Services (ITSS)
- Professor Mark Musen, Medical Informatics, co-chair
- Professor Paul Segall, Geophysics
- Jan Thomson, Information Technology Systems and Services (ITSS), co-chair

The following organizations and individuals contributed significantly to the work of the Committee:

- SUL/AIR: Lois Brooks, Karen Nagy, and Scott Stocker
- Stanford Institute for the Quantitative Study of Society (SIQSS): Professor Norman Nie and Sunshine Hillygus
- Office of the Registrar: Fred Spitz
- Overseas Studies Program (OSP): Michael Gonzalez
- Stanford Center for Professional Development (SCPD): Aubrey Harris
- Information Technology Systems and Services (ITSS): Paul Beirne, Jan Cicero, Bill Clebsch, Catherine Knipe, Clare Olson, Dave Ream, and Sandy Senti
2001 Needs Assessment Survey — Some Key Findings by the Committee on Computing Infrastructure and Academic Need

Representative comments of participating faculty and senior lecturers:

“Stanford needs to streamline and simplify support services. The current alphabet soup of organizations is hopeless for faculty to sort out [...] The easiest thing is to [...] go back to teaching the way we have for years.”

“Stanford currently has a confusing array of IT support services.”

“I have no idea where to turn for help — there are too many offices, centers, etc., that each go by an obscure name.”

“... there are so many groups with obscure names and overlapping functions ...”
Stanford University
Faculty Information Technology Uses and Needs:
A Report on the 2001 Faculty IT Survey

Report prepared by
the Stanford Institute for the Quantitative Study of Society (SIQSS)
and
Information Technology Systems and Services (ITSS)

August 2001
# TABLE OF CONTENTS

**Section One**

**INTRODUCTION** .............................................................................................................1

**FACULTY USAGE** .............................................................................................................1
  Ubiquitous Use, Clear Value...........................................................................................1
  Skilled Users See Teaching Potential.............................................................................1

**FUTURE CHALLENGES** ................................................................................................2
  Supporing a Sophisticated IT Community.................................................................2
    Diversity of Support Needs .........................................................................................2
    Instructional IT Support Needs..................................................................................2
  Awareness of Stanford’s Support Resources .............................................................2
  Reliability of Technology .............................................................................................3
  Access to IT Resources ................................................................................................3

**LOOKING AHEAD** .........................................................................................................4

**Section Two**

**SIQSS SUMMARY OF RESPONSE DATA** ................................................................5

**FACULTY IT SURVEY RESPONDENTS** .......................................................................5
  Who Participated? ........................................................................................................5
  Faculty IT Use ..............................................................................................................6
    How often are faculty using IT? ...............................................................................6
    Where are faculty using IT? ......................................................................................6
    What kinds of infrastructure are faculty using? ......................................................6
      **Hardware** ...........................................................................................................6
      **Software** ............................................................................................................7
      **Networking**.......................................................................................................7
  Faculty IT Skills ..........................................................................................................8
  Faculty Opinion of IT’s Importance ...........................................................................9

**FACULTY IT NEEDS** .................................................................................................. 10
  Teaching IT Needs ......................................................................................................10
  Individual IT Needs.....................................................................................................11

**BARRIERS TO IT USE** .................................................................................................12

**IT SUPPORT ISSUES** .................................................................................................13
INTRODUCTION

In the Fall of 2000, the Committee on Computing Infrastructure and Academic Needs was appointed by Provost John Etchemendy with the purpose of examining the University's needs for information technology (IT) resources and support. To complete its charge, the Committee implemented a comprehensive survey of the faculty, a series of formal focus groups, and a systematic prioritization/costing exercise. The Faculty IT Survey was commissioned and designed to provide information for the continuing integration of information technology into the research, instruction and administrative activities of the faculty at Stanford University.

The Committee invited 1,600 Academic Council members and senior lecturers to participate in a voluntary survey of their opinions about information technology. The survey is a modified version of a questionnaire developed, and used effectively, at the University of Michigan (and, in fact, the responses of Stanford faculty are quite similar to those of Michigan respondents). Recipients were allowed a two-week period in which to respond; both Web and paper formats were provided. (Faculty were sent an email with a link to the Web survey programmed by Scott Stocker, SUL/AIR and/or were provided with a paper copy through their department administrator.) Five hundred ninety-four — more than one-third — of the faculty members returned a completed survey.

The Stanford Institute for the Quantitative Study of Society (SIQSS) was enlisted to analyze and summarize the survey findings. Data from this 2001 faculty survey provide important information that will help to guide future strategic directions for IT at Stanford University. The survey findings will help in guiding the development and implementation of IT initiatives that support teaching, learning, research and scholarship, and that improve the experience and use of IT in support of academic excellence.

FACULTY USAGE

Ubiquitous Use, Clear Value

Information technology (IT) has had an impact on almost every area of life and work on university campuses. For the vast majority of Stanford faculty respondents, IT is now an important part of daily university work, with 99% using a computer every day and 99% using email every day. Ninety-six percent of respondents report using the computers in their office and 75% at home every day. Ninety-six percent of respondents report using a computer at both their office and home at some time in the past year, and more than 92% use a computer sometime while traveling.

Stanford faculty also clearly believe that information technology is a tool that adds value to their university work. Seventy-four percent strongly or somewhat agree that IT helps them increase their impact or productivity, and 74% believe that it is important for their students' success. Seventy-three percent use IT to contribute to their own professional development and 65% are able to use IT to collaborate with colleagues and students. For 23% of the faculty, Stanford's IT resources are a factor for remaining at the University. Fewer than 7% say that IT is not useful to them.

Skilled Users See Teaching Potential

The Stanford faculty see themselves as skilled in using information technology. Eighty-two percent of all respondents rate themselves as intermediate to advanced computer users, and 12% rate themselves as expert. Only 5% consider themselves to be novice computer users and less than 1% are not yet using computers. The distribution of perceived expertise by faculty rank is fairly consistent, though, as might be expected, slightly more assistant professors assess their computer skills at the “expert” level.

Survey respondents were given a list of technologies and asked if they could easily obtain support and service, and to what extent would they like to use various resources for their work at Stanford. The vast majority would like to incorporate at least one instructional technology
Faculty IT Uses and Needs: Survey Report

into their teaching. More than 50% would like to use computer-based instructional support materials like Web pages with course material, email lists of students, audio and/or video clips, animations/slides, or class bulletin boards/Web forums.

Stanford faculty clearly recognize the utility of information technology for achieving their academic goals. Stanford’s mission is to ensure that the faculty derive full value from the IT resources provided by the University.

**Future Challenges**

According to the survey results, Stanford faces several challenges in taking full advantage of new information technologies. Foremost among these challenges are the issues of IT support, reliability, and access. Stanford’s ability to retain its position as a preeminent institution of higher education will depend to a significant extent on how the University confronts these challenges as they develop and implement IT strategies and guiding principles.

**Supporting a Sophisticated IT Community**

The vast majority of faculty respondents have incorporated IT into their Stanford work, and they value the contributions IT has made to their teaching, learning, and research. However, faculty respondents emphasize the need for improved technical and instructional computing support at Stanford. All universities are increasingly struggling with the critical issue of how to effectively support the use of technology in teaching and research. (See, for example, The 1999 National Survey of Information Technology in Higher Education, The Campus Computing Project, Endino, CA.) Though the majority of Stanford faculty agree that the University is meeting their IT needs (71%), most also report that they are unsatisfied with the computer support that they receive (50%). These support needs include not only maintaining the technology, but also developing the skills of the technology user and providing professional incentives to encourage the adoption of new technologies. According to the faculty respondents, their top concerns when using information technology include the time it takes to learn/use technology and the lack of necessary support. Similarly, the top three barriers to the use of new technologies are all support-related: 1) skills; 2) time; and 3) technical support.

**Diversity of Support Needs:** The diversity of Stanford’s community parallels the diversity of computing and support requirements. Stanford must develop a flexible approach to IT support because support needs vary across disciplines and expertise. Most direct (“front line”) user support is by departmental staff, but this support is very uneven between departments, with some departments having substantial computer staff and facilities of their own and others having little or none. Stanford must also be able to focus on the concerns and expectations of faculty who are not computer enthusiasts, while at the same time providing expertise to the most sophisticated IT users. Faculty want and need “just in time” support that is tailored to their current level of understanding and their particular specialist requirements.

**Instructional Computing Support:** Faculty are clearly interested in integrating technology into their teaching when it can enrich the educational experience, but effective use of classroom technology requires intensive support of the faculty member both in training and direct classroom support. More than 50% of faculty respondents report that their instructional computer support needs are not being met for learning the best ways to teach with technology. Instructional technology is developing so rapidly that many faculty did not use such methods when they were learning to teach. At the same time, technical problems inevitably arise in the use of IT in the classroom. More than 65% of those who have used a technology-enhanced classroom encountered some type of problem with its use. If faculty are expected to adopt information technology in their teaching, then the added value of using the information technology must be clearly evident, and easily facilitated.

**Awareness of IT Support Resources:** There is also a great lack of awareness of current support services on campus. Stanford offers a wealth of computing resources and support to help faculty to be more productive, creative, and self-sufficient in academic pursuits, but the faculty respondents indicate that they are having a difficult time in finding their way around
this environment. Fifty percent of faculty respondents report being unfamiliar with IT resources at Stanford. Because there are so many IT groups at Stanford, it’s not always clear whom faculty should call when they need support for hardware, software, applications, or networking and connectivity issues. A challenge for the University will be to not only build awareness of support resources and to make it easy for faculty to use support services but also to create more person-to-person, local-level information technology support resources.

Reliability of Technology

The other major concern that stood out among the respondents is about the reliability of technology. Concern about the reliability of technology resources is clearly intertwined with the perceived need for improved IT support. Anytime technology does not operate reliably it increases both the time necessary to use that technology and the need for assistance. More than 39% of respondents stated that IT reliability was a top three concern of IT use. And as faculty become more dependent upon a computerized and networked environment, equipment breakdowns will become more disruptive. Many faculty included anecdotes of experiences they have had investing time and energy into an IT application, either for their courses or research, only to have the technology fail at a critical time. If faculty cannot count on a network connection or a projection device working, they are much less likely to use such technology.

Stanford must work to not only improve the reliability of IT resources, but also to be able to assess such reliability. Stanford currently has no generally agreed upon standard of service performance and responsibilities. Without such a standard, the University cannot assess the impact of technological breakdowns on its curriculum, research programs, or the management of the institution.

If Stanford wants to make it easy for faculty to adopt information technology when it can be beneficial, Stanford must first and foremost ensure that the technology always runs and is always available.

Access to IT Resources

Fundamental to effective information technology use in learning, teaching, and research is that faculty have ready access. At the most basic level, providing ready access requires a networked desktop computer, software appropriate to the discipline, and adequate support so that equipment and software can be effectively used. More than 35% report that access is a barrier to application/media use. Since faculty often work within a constantly fluctuating schedule (literally any hour of the day or night, any day of the year, at any one of thousands of locations), they want access to all of Stanford IT resources all the time, from any location. Remote network access is therefore critical, especially from home. Forty-eight percent of faculty respondents are unsatisfied with their home Internet connection, and more than 74% of modem users are unsatisfied. This need for unlimited IT access can only be expected to increase. In most disciplines, electronic collaboration across institutional and geographic boundaries is becoming a virtual necessity. More than 65% report that they are able to use IT to collaborate with colleagues. To facilitate that collaboration, researchers need access to electronic mail, electronic document exchange, and sharing of massive data objects and real time collaboration with voice, data, video and/or a shared electronic space.

Also fundamental to an IT-based learning-centered environment is that students have full and ready access. Full network access is essential to participation in an electronic information-rich environment, and more than 74% of faculty respondents believe IT is important to their students’ success.

Similarly, effective IT use for teaching also requires full faculty access to appropriate instructional technology. Access to IT infrastructure is a precondition to faculty integration of IT into teaching. The faculty respondents cited the lack of Internet access/network connectivity in classrooms as a serious barrier. More than 37% of faculty respondents indicate that Internet connections in the classroom are a technology that they want and that is currently missing, and 71% of those respondents say that having an Internet connection is important. Stanford must provide access to technology-based teaching tools so that instructors can explore methods
and develop new materials, while support for instructors should be easy to use and reliable so that they may take full advantage of the technology as it matures. Faculty appear interested in distance education initiatives (32% are interested in remote video teaching), but to be successful, the instructor must have ready access to reliable technology connections. Integrating appropriate technology into classroom teaching requires a serious commitment and effort by the University to identify appropriate instructional software, deploy that software for all instructors who will use it now and in the future and, in many cases, assist in the education of those instructors in its use, requiring specialized support personnel.

LOOKING AHEAD

The goal of Stanford’s IT policies is to create and support an IT environment that enhances the ability of the Stanford community to teach, do research, and provide public service.

A challenge for the University will be to not only build awareness of support resources and to make it easy for faculty to use support services but also to create more person-to-person, local-level information technology support resources. As one faculty respondent wrote,

“If the University wants faculty, staff, and students to move boldly into using technology for instruction, then the University must be prepared to support these activities and services fully and well.”
A. Stanford Faculty IT Survey Respondents

1. Who participated in the survey?

594 faculty members responded to the survey (91% completed the survey online). Although this survey represents only 35% of the Stanford faculty (a response rate similar to many scientific surveys), those who did respond are fairly representative of the entire faculty.

Survey Respondents:
Representation of Stanford Schools

Survey Respondents:
Representation of Faculty Rank

These faculty members clearly have an interest in — and opinion on — the direction and future of Stanford information technology (IT) and they represent the broad spectrum of IT usage and expertise.
2. Faculty IT Use:

How often are faculty using IT?

- 99% of Stanford faculty use a computer every day for their Stanford work.
- 76% use the computer in their office every day. 92% use the computers in both their campus office and their home at least weekly.

Where are faculty using IT?

- 96% use a computer to do their University work both at their office and home.
- More than 92% report having used a computer sometime while traveling; 65% use a computer while traveling at least once per month.
- Labs and Campus Computing Sites are the least used sites, though more than 16% use computers in their labs every day in addition to computers in their offices.
- 76% prefer to use computers at their campus office, which is not surprising given that fewer than 31% say they can access all the computing resources they need from home.

What kinds of infrastructure are faculty using?

Hardware:

- 73% work on PC-compatible computers, 50% work on Macintosh computers, and 25% use both a PC and a Mac. 24% use a UNIX workstation.
- Working from home, 27% use both a desktop and a laptop. 35% use just a desktop, and 35% use only a laptop.
- Only 2% do not use a computer at home.
- 49% use a scanner; 73% use tapes and disks for back-up; 42% use a palm pilot; 33% use a digital camera.
Software:
- Email (99.8%), word processing (99%), and Web browsers (99.5%) are the top applications used.
- More than 84% use a spreadsheet application and 82% report using presentation software, such as PowerPoint.
- Close to 60% reported using graphics, 74% publishing, 50% database, 61% calendaring and 50% statistics software.
- Reflecting the increasing the technological sophistication of faculty, 38% report using a Web editor, 39% use multimedia, 24% use Web software and 32% use.
- 87% use transparencies, 37% use projected movies, 63% use video/audio tape, 70% use computer projected presentations, 55% use web-based text and graphics, 32% use web-based audio and video, 26% use streaming video, 17% use web-based conferencing, 28% use video conferencing, 22% use digital audio/video, 20% use 3-d modeling, 29% use computer generated animation/graphics.
- 19% use Web pages for course materials and 27% use email lists of students, though the great majority would like to use these and other IT teaching resources.

Networking:
- Only 6% do not use an Internet connection at home.
- For those with an Internet connection, more than 60% use a regular modem; 14% use Stanford DSL, 13% use commercial DSL, 5% use cable modem, 3% use ISDN, 2% use wireless modem.
- However, only 52% are satisfied with the speed of their home Internet connection. More specifically, it is the regular modem users who are dissatisfied.

<table>
<thead>
<tr>
<th>Satisfaction with Internet Connection at Home, by Type:</th>
</tr>
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<tbody>
<tr>
<td>Percent Somewhat or Very...</td>
</tr>
<tr>
<td>Regular modem</td>
</tr>
<tr>
<td>Wireless modem</td>
</tr>
<tr>
<td>Cable modem</td>
</tr>
<tr>
<td>ISDN</td>
</tr>
<tr>
<td>Stanford DSL</td>
</tr>
<tr>
<td>Commercial DSL</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>
3. Faculty IT Skill

The Stanford faculty see themselves as skilled in using information technology:

- Only 5% consider themselves to be novice computer users and less than 1% are not yet using computers.

- Of the 5% who consider themselves novice users, more than 77% are full professors.
- Assistant professors are more likely to be Advanced or Expert users.
- 88% agree with the statement, “I am able to use IT more now than 2 years ago.”
4. Faculty Opinion of IT’s Importance

- 83% consider Stanford IT to be useful; 74% report Stanford IT is important to student success.
- 73% agree with “I am able to use IT for my professional development.”

Percent of faculty Who Agree with the Following Statements

- Is useful to me: 83%
- Helps to increase my impact or productivity: 74%
- Is important to my student's success: 74%
- Is a factor in my remaining at Stanford: 23%
B. Stanford Faculty IT Needs

“Although I am extremely technology-literate, I do not have expertise in the link between technology and pedagogy, nor do I have the time to build tools from scratch. Better support for these tools would be important, and would influence my teaching tremendously.” — anonymous survey respondent

Despite their computer expertise and IT sophistication, faculty respondents report numerous information technology needs, particularly for teaching technology resources.

1. Teaching IT Needs

Forty-seven percent of respondents indicate dissatisfaction with their ability to use technology for teaching.

A great majority of respondents indicated that if they could easily obtain support, they would like to use (and are currently not using) the following basic services: Web pages for course materials, e-mail lists of students, computer based audio/video clips, animations or slides, and class electronic bulletin boards.

Faculty would like to improve the technology of classrooms:

- 37% report that SUNet/Internet connections are missing from their classrooms; 44% report that computer projection is missing; and 25% report that video projection is missing.

Percent of faculty who are already using the following IT tools:

<table>
<thead>
<tr>
<th>Service</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Web page with course materials</td>
<td>19.1%</td>
</tr>
<tr>
<td>E-mail list of students in the class</td>
<td>26.8%</td>
</tr>
<tr>
<td>A/V clips, animation, slides</td>
<td>11.3%</td>
</tr>
<tr>
<td>Class electronic bulletin board</td>
<td>7.8%</td>
</tr>
<tr>
<td>Computer simulations</td>
<td>6.0%</td>
</tr>
<tr>
<td>Multimedia presentation classwork</td>
<td>2.9%</td>
</tr>
<tr>
<td>Self-paced tutorials with A/V</td>
<td>1.5%</td>
</tr>
<tr>
<td>Self-paced tests of routine tasks</td>
<td>1.8%</td>
</tr>
<tr>
<td>Streaming video</td>
<td>2.7%</td>
</tr>
<tr>
<td>Audio/video for remote teaching</td>
<td>2.4%</td>
</tr>
<tr>
<td>Step-by-step writing tutorials</td>
<td>1.1%</td>
</tr>
<tr>
<td>Textual analysis programs</td>
<td>1.8%</td>
</tr>
</tbody>
</table>
2. Individual IT Needs

- 28.9% report that Stanford technology resources do not meet their technological needs.
- 69% do not enjoy the time spent maintaining their computers; 80% agree that the time spent maintaining their computers could be used more productively.
- 52% of faculty report that they are not able to access Stanford computing resources from home. This is not surprising given that 48% report that they are dissatisfied with the speed of their Internet connection at home (and 73.2% of regular modem users are dissatisfied!).
59.7% report that they are not able to hire knowledgeable computer support staff and 42.7% report they are not able to adequately budget computer support with research grants. These financial needs appear especially prevalent for those in Education and Humanities/Sciences, while financial needs are much less an issue for faculty in the GSB.

**SCHOOL COMPARISON OF FINANCIAL NEED**

<table>
<thead>
<tr>
<th>Percent of Faculty Reporting</th>
<th>GSB</th>
<th>H&amp;S</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barrier: no department funds for software licenses</td>
<td>12%</td>
<td>29%</td>
<td>30%</td>
</tr>
<tr>
<td>Barrier: expense</td>
<td>20%</td>
<td>32%</td>
<td>14%</td>
</tr>
<tr>
<td>Not able to budget computer support with grants</td>
<td>17%</td>
<td>46%</td>
<td>38%</td>
</tr>
<tr>
<td>Not able to hire knowledgeable computer staff</td>
<td>54%</td>
<td>65%</td>
<td>68%</td>
</tr>
</tbody>
</table>

In an open-ended question asking faculty to name three things that Stanford could do to improve IT products and services, 25% indicated that training was needed.

C. **Barriers to IT Use**

“In my imagination, I can think of millions of creative things to do with existing technology for teaching purposes, but the time involved, the changing technology and the steep curves in learning to use new software and data banks is tremendous; how can one person be an expert on everything? It’s impossible!”

— anonymous survey respondent

Stanford faculty are interested in learning about and using more technology, but they have many concerns about technology use and have encountered many obstacles to the successful use of technology.

73% of faculty report that skills are a barrier to IT use; 71% report that lack of time is a barrier; and 57% report that technical support is a barrier.

Similarly, the faculty report the following as their top four concerns when using information technology for their Stanford work:

1. Time it takes to learn/use technology
2. Lack of necessary support
3. Reliability of technology
4. Cost of technology

Clearly, these concerns and barriers are intertwined. Any time technology does not operate reliably it increases both the time necessary to use that technology and the need for support.
D. IT Support Issues

“Stanford must increase support for research computing. We rely much too heavily on graduate students to maintain Unix systems, for which they are ill trained [...] If we do not pursue advanced computing in a cogent and serious way, we risk falling behind to our colleagues at competing institutions. In fact that is already happening.” — anonymous survey respondent

Stanford faculty are using IT more than ever and would like to learn more, but they report an absence of adequate IT support. More complex technology increases the need for instructional and technical support.

- 50% of the faculty are not satisfied with the computer support they receive.
- 55% of faculty respondents consider the lack of necessary support to be one of their top three concerns when using IT to do Stanford work.
- 25.4% report that Stanford IT support services are not helpful.

1. Technical Support*

- When asked the three things that Stanford could do to improve IT technology products and services, 49% indicated that some improvements in technical support were needed.
- 38% report their support needs are not being met for hardware upgrades; 40% report their support needs are not being met for software upgrades; and 43% report their support needs are not being met for getting help with computer problems.

*The industry standard for “IT support to staff ratio” is at minimum 1:40 (Gartner Group). Other consultants recommend a ratio as high as 1:10 (Tim Mills-Groninger, Technology Resource Consortium).
2. Instructional Computer Support

“Stanford needs to streamline and simplify support services. The current alphabet soup of organizations is hopeless for faculty to sort out. This is particularly true for support for teaching, where if the barriers are too high the easiest thing to do is to drop the idea and go back to teaching the way we have for years.”

— anonymous survey respondent

<table>
<thead>
<tr>
<th>Instructional Computing support needs</th>
<th>NOT being met</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning the best ways to teach with technology</td>
<td>51%</td>
</tr>
<tr>
<td>Incorporating web resources in my courses</td>
<td>48%</td>
</tr>
<tr>
<td>Using technology in the classroom</td>
<td>46%</td>
</tr>
<tr>
<td>Preparation of digitized course material</td>
<td>41%</td>
</tr>
<tr>
<td>Creating course websites</td>
<td>38%</td>
</tr>
<tr>
<td>Student access to computer hardware</td>
<td>24%</td>
</tr>
<tr>
<td>Student access to instructional software</td>
<td>20%</td>
</tr>
</tbody>
</table>

- 46.7% are not satisfied with their ability to use technology for teaching.
  - More than 50% of faculty report their instructional computer support needs are not being met for learning the best ways to teach with technology.
  - 46% report their instructional computing support needs are not being met for using technology in the classroom.
  - Only 23.5% are using Web-based course material.
  - 44.3% of faculty report that computer projection is missing from the classrooms they use; 36.6% report that Internet connections are missing.

- Many faculty have also encountered problems with teaching in the University’s current technology-enhanced classrooms. 55% of those who have attempted to reserve such a room have encountered equipment problems; 42% have encountered technical support problems; and 39.2% report problems with the physical environment of the room.

3. Awareness of IT Support Resources

“Stanford currently has a confusing array of IT support services housed within different organizational hierarchies. It is difficult for faculty to know where to turn to obtain help. There is a need for a simplified organizational structure with opportunities for ‘one stop shopping’.” — anonymous survey respondent

One of the clearest messages from the IT survey is that Stanford faculty find the absence of computer support to be an obstacle to both the general use of technology and to the successful incorporation of technology in the classroom. It is also apparent, however, that the faculty are largely unaware of University support resources.

- 50.1% of faculty report being unfamiliar with the IT resources at Stanford.
- The support resources on campus appear to be fragmented and under-utilized.
Instead, faculty respondents are looking locally for support. The top three sources of faculty IT support are colleagues (79% using for IT support), students (56%), and department local network administrator (LNA) (44%).

**Percent of Faculty Who Have Used Stanford Support Resources**

- **ITSS Help Desk (5-8181)**: 55%
- **Speaking of Computers Newsletter**: 54%
- **Visual Art Services**: 44%
- **About Computing Handbook**: 43%
- **HelpSU (helpsu.stanford.edu)**: 41%
- **Computing/Communication Web Pages**: 41%
- **Technology-Enhanced Classrooms**: 34%
- **Sweet Hall Help Desk**: 34%
- **School or Departmental Cluster**: 34%
- **Center for Teaching and Learning**: 26%
- **ITSS Software Licensing Support**: 24%
- **ITSS Centralized System Administration**: 24%

**Percent of Faculty Who Have Used Support Resources (continued)**

- **Multimedia Studio (Meyer)**: 19%
- **School-based Support**: 18%
- **Stanford Dell Bundle Program**: 16%
- **Leland Course Support**: 15%
- **Computer-based Training**: 12%
- **Academic Technology Lab**: 12%
- **ITSS Microcomputer/Internet**: 9%
- **Stanford Learning Lab**: 7%
- **Tresidder Cluster Help Desk**: 7%
- **Stanford Language Lab**: 6%
- **MediaWorks**: 6%
- **Statistics Lab in Green Library**: 5%
- **Assistive Learning**: 2%
- **TGIF Clinics**: 1%