

# FACULTY RESPONSE TO CLASSROOM USE OF E-TECHNOLOGY

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## ABSTRACT

Some of us are still wrestling with the question of how we can encourage and support faculty in the use of instructional technology. Faculty members are individuals with varying needs and desires, but they often resist becoming involved in situations that might reveal gaps in their knowledge or make them seem dependent on less-credentialed people. We examine several different faculty profiles in the context of their own expectations of those of students, and suggest ways of providing motivation and support in a nonthreatening manner.

## Keywords

Academic Technology, Faculty support

## 1. INTRODUCTION

The current wave of course support software packages both underscores the increasing need for IT organizations to provide academic support and increases the danger of a "we know what's good for you" image.

College and University technology users are a diverse lot; different people have dramatically different degrees of technological sophistication. We are expected to serve them all, and this creates both challenges and opportunities.

We explore this environment (from the IT point of view, of course): What are some of the faculty perspectives? Student perspectives? What are faculty and student expectations?

Finally, we consider how we can assist and, where appropriate, motivate faculty in their use of technology.

## 2. CATEGORIES OF FACULTY

Faculty members being rugged individualists, any attempt to categorize them is dangerous. Nevertheless, in trying to address faculty needs with limited support staff, we've found that we can place them into about four main categories.

### 2.1 The Bleeding Edge

*Blanche Edwards enjoys using available resources in creative ways. Within two years of the emergence of web graphics, Blanche was already posting course materials on the University's server, and assigning projects which involved creating web pages and posting work for others to review. Blanche has long used electronic mail and chat rooms in her classes, and looks for additional features of technology and ways to use them. She willingly assists other faculty; and tirelessly gives dog and pony shows of her work at the request of others.*

People like Blanche are risk takers; they are excited about (and want to use) new developments; they want to lead, and willingly make substantial personal investment. These "bleeding edge" people need innovative resources but relatively little support.

### 2.2 The Early Follower

*Earl Fowler saw benefits early on of putting information online. As a History professor, he enjoyed the benefits of virtual access to resources that were otherwise geographically widespread and in some cases physically fragile. Earl exercised new skills without fanfare, and only to the extent that it improved information delivery; not just for the sake of using technology.*

Earl and his compatriots are open to benefits of new developments and willing to change when they see an advantage in doing so. Like the "bleeding edge" people, they are willing to make significant personal investment; but only if they can foresee relatively certain payoff. These faculty members need up-to-date resources and moderate support

## 2.3 The Mainstream

*Mae Engstrom has a computer on her desk and uses it quite a bit. She uses her word processor to create course handouts and within the past couple of years has started communicating with her students via e-mail. She uses the Internet occasionally to retrieve information suggested by colleagues she knows through her professional society. Mae is working on posting the course syllabus on the web and hopes also to add some reference materials, but she hasn't yet found time to learn how to create web pages and send materials to the web server. She has heard the college is going to acquire a course support software package and is looking forward to that as a vehicle for accomplishing her objectives.*

Mainstream people will change, sometimes reluctantly, to avoid obsolescence; they are willing to make moderate personal investment but want proof of benefits. Mainstream people are usually satisfied with moderate resources (unless they have fallen prey to the siren song of Madison Avenue) but need substantial support.

## 2.4 The Late Bloomer

*Larry Blumberg doesn't use e-mail and doesn't want to. He has a vintage 1990 machine on his desktop, but doesn't have a network connection. Larry is perfectly content to use PC-Write to generate his handouts and class notes, and sees no reason to waste his time learning about Windows or the Internet. He hasn't yet reached the level of needing support; he still needs sufficient motivation!*

The Larrys of the world are risk averse and may not be willing to change at all. To effect any change, they will need extraordinary support.

These are basic types, but anyone who has worked with people at all recognizes that it isn't that simple. It might be interesting to create a sort of Myers-Briggs four-dimensional cube based on the following properties:

- Enthusiasm for Technology
- Acceptance of and Adaptability to Change
- Willingness to Take Risks
- Leadership Ability

To illustrate the diversity, we single out a couple of other types:

## 2.5 The Suspicious

*Ed Gee doesn't trust the Internet, or networks. He won't store files on the network because he is afraid others will hack into them (never mind the number people who carry keys that will open his office). Ed teaches about technology and makes good use of it, but he's pretty sure that most people neither need it nor use it well.*

## 2.6 The Bleeder

*Wayne Cutter has the latest computer at home and is constantly angling for its counterpart at the office. In his own view, he is on the bleeding edge; or, at least, he would be if his equipment didn't give him so much trouble when he was installing new (unsupported) software and the IT staff wasn't so slow about repairing it. From the IT viewpoint, Wayne does plenty of bleeding, but it's mostly self-inflicted.*

## 3. CATEGORIES OF STUDENTS

We mention students because, after all, faculty members are concerned with them. The categories are similar to those of faculty; it's just that the scales are different. All but the least experienced students would likely rank as "Early Follower" faculty or better.

## 4. FACULTY EXPECTATIONS

One factor that makes educational IT so challenging is that faculty of all categories have the same core expectations, although definitions are categorical or even individual.

### 4.1 Autonomy

*Juan Maionway is a power user who needs a UNIX workstation. Since UNIX comes with an on-board mail system, he sees no reason why he should use the institutional system, and has asked correspondents to address mail to his own machine (and, of course, sends his mail from it). He also "needs" to have full access to the campus network and complete freedom from any firewall restrictions. Juan's machine recently was invaded and converted into an illicit server for unlicensed software, until network monitoring discovered that and his system was disconnected.*

Academic Freedom is almost a religious doctrine, and it extends far beyond intellectual activity. It loosely (or maybe strictly) translates to a total absence of restrictions or limitations. Faculty members have definite pedagogical preferences, and those have become interwoven with technological preferences to the point of inseparability in some cases. Many faculty members also claim the freedom to seek advice from any source of their choosing, and that generally does not include those with less education or status (e.g., staff).

### 4.2 Ease of Use

*Ima Nuhрутt has used VAX mail for years. The university is trying to phase VAX mail out in favor of newer technology, but Ima remains loyal to VAX mail. She tried the new system once and found that it doesn't work; it just doesn't recognize Internet addresses, which everyone knows have the form "in%"person@college.edu""*

User interface should be familiar, or at least intuitive. Most people have little patience for scavenger hunts. In a nutshell, the technology should do what the faculty member *intended* it to do, not what it was *told* to do. At the very least, there needs to be a familiar user interface with clear pathways and progressions and meaningful on-line help. Response should be instantaneous, no matter whether at the desktop, on an institutional server or network, or on a server in the back closet of the remotest corner of the universe. One corollary is that familiar user interfaces should *never* be changed (see below).

### 4.3 Adequate resources

*Hedda D. Joanzess complained that her new machine was "useless" because it was delivered with Windows 95 instead of Windows 98. While we support Windows 98 when there is good reason, we default to Windows 95 for reasons of supportability and security; for most faculty members, the added features of Windows 98 would go unused and unrecognized. As far as we can tell, Hedda has no special need for Windows 98.*

Most faculty members can understand and live with the fact that resources can't always be the *latest*, but they should at least be *adequate* (whatever that means). Clearly, the definition depends on the discipline and the level of user sophistication. (Our challenge is to temper overactive appetites, whet flagging ones, and know which is which.) Desktop equipment, classroom equipment, software, servers, network, Internet connection should all be "up to snuff." That, in turn, means that all of this should be updated as often as possible. Without changing any of the interfaces, of course. See above.

#### 4.4 Readily Available Assistance

*Em Portent has never attended an Excel workshop, but is now insisting that "someone" come "right over" to help him with a "problem." He worked three hours on a spreadsheet, then "something happened" and "now it's all gone." It turns out he inadvertently clicked on the "Sheet2" tab, and clicking on the "Sheet1" tab magically restores his work.*

People don't want to *learn*; they just want to *know*. Attendance at workshops and short courses is predictably sparse, but everyone wants immediate personal attention when the inevitable difficulty arises. One-on-one consulting (or training) is preferred. For this reason, most turn to colleagues first, and then to established contacts in IT. The Help Desk may be accepted, reluctantly, as a viable source of assistance. Training courses and workshops are sort of a last resort; they are most acceptable if led by faculty, less so if by IT staff, and regarded as a last resort if led by students.

### 5. STUDENT EXPECTATIONS

Most faculty members respond to student expectations; in some cases, their own expectations are driven by those of their students. Thus, we outline briefly the kinds of student expectations we've experienced.

#### 5.1 Unimpeded access

Students seem to expect any resource will be available at any time with no difficulty and *no* delay (regardless of how much they impede their own access with their network activities). The same information should be accessible from "any" computer "anywhere" (including, or perhaps especially, their computers in their residence hall rooms) at "any time"; they expect to move seamlessly from one service to another (e-mail, courses, administrative, web, etc.).

#### 5.2 Faculty will be "chip-hip"

*Dewey Moore wrote his own course support software, including an on-line grade book which his students love; they can't understand why all faculty members don't use Dewey's software. Dewey was willing to make his grade book available to other faculty until he realized the security problems involved; now he is looking forward to the institution's acquiring a commercial package.*

Students may not expect their professors to know more, or even as much, as they (think they) do about technology, but they do expect faculty members to be conversant with the basics ("basics" being a moving target). They expect faculty to use an appropriate amount of technology and to take advantage of its unique features, but most don't want faculty to sacrifice core values for the sake of technological image. At the same time, paradoxically, degree of polish seems synonymous with degree of credibility.

#### 5.3 Readily Available Assistance

Student expectations are similar to those of faculty, with the added impatience of youth and the added expectation that faculty will be able to provide technical assistance. At the same time, they have a larger peer group from which to draw, and fewer inhibitions about asking for assistance.

#### 5.4 Consistent Interface

Different interfaces for different courses don't seem reasonable (contrast this with the faculty expectation of autonomy); in fact, increasingly, web browsers ought to allow access to all aspects of the university network (coursework, library, administrative information, etc.)

#### 5.5 Other Expectations

Student expectations for adequate resources and ease of use are generally similar to those of faculty, though "adequate" may be on a higher plane, and students tend to be more adaptable and therefore regard a wider variety of resources as "easy to use."

### 6. MOTIVATION AND SUPPORT

This diversity of abilities and expectations, coupled with the perception that IT plays a minor supporting role in the unfolding drama, raises questions of how we can best provide the needed motivation and support.

#### 6.1 Motivation

We have to accept that it is not IT's role to motivate the faculty, and thus we cannot do it. Overtly, that is. A wise mentor once said,

*"There's no limit to amount of good you can do if you don't care who gets credit."*

Only faculty can overtly motivate faculty; use of technology has to be the faculty member's idea. But we can broadcast seed, and hope some of it falls on fertile soil. Here are some methods:

- 6.1.1 Set an example (quietly); use technology prominently but without fanfare in IT activities.
- 6.1.2 Showcase faculty technology activities.
- 6.1.3 Sponsor informal activities (e.g., "Faculty Fridays").
- 6.1.4 Clip relevant material from electronic newsletters and forward to faculty as appropriate, without comment but with subscription information
- 6.1.5 Sponsor a campus information technology listserv; make sure you gratuitously add key people.

#### 6.2 Support

Motivation doesn't help much if motivated faculty can't get the support they need.

For reasons noted above, and for pedagogical reasons, collegial support is best. Colleagues from the same discipline (local or at other institutions) can offer insights into use of technology that nobody else can, and their advice will be accepted as no others will.

IT, then, needs to support the support system. Several possibilities exist:

- 6.2.1 Identify a key faculty member or members in each department and provide them with direct paths to IT experts.
- 6.2.2 Keep communication flowing to these key people.
- 6.2.3 Work with these people to establish a Teaching, Learning, and Technology Roundtable. They are the ones who need to be involved in setting directions, planning, and arguing for budget.
- 6.2.4 If you haven't done so, build an IT/Library team to provide one-stop shopping on information technology questions. This will likely increase contact; Library staff are perceived as friendlier and more in tune with academic life, and are "trained" to lead people to resources. Faculty members accept them in this role.

## 7. CONCLUSIONS

We've observed that faculty members at higher levels need and expect good resources, but can generally provide support for themselves and, sometimes, their colleagues. Faculty at lower levels generally need personal support to get started, though tend to develop rapidly. IT needs to deliver both resources and support, and the balance can be tricky.

Technology is an important tool. Faculty members need to understand student expectations and temper those expectations with reality; they need to know how to use technology; and they need reliable resources and responsive help at the inevitable difficult times.

All that said, technology is only a tool. Our educational mission has not changed much over the centuries, and we need to maintain our substance and our integrity. The glitz of technology is no substitute. Put another way, an elegant table setting doesn't improve inedible food.