SENATE FORUM

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Inside this issue…

SENATE FORUM

The Senate Forum is a publication of the Academic Senate at California State University, Fullerton. It is designed to stimulate discussion, debate, and understanding of a variety of important issues that the Senate addresses. Individuals are encouraged to respond to the materials contained in the Senate Forum or to submit their own contributions.

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Moving to Moodle: The New Era of Learning Management Systems

Amir Dabirian and Sean Walker

The CSU Fullerton Learning Management System (LMS), also known as Course Management System (CMS), was launched in 1999 when the Titan Bookstore purchased and donated to the FDC two different products for a campus pilot. The two products, from Blackboard and WebCT, were the vendors with the largest market shares. At the time the campus paid annual licensing costs of $5,000 for Blackboard and $5,000 for WebCT. Faculty used both systems until 2003 when the LMS use was predominantly in Blackboard 6.1. After a few months of deliberation, the WebCT application—then used by only by a handful of faculty—was decommissioned and Blackboard became the system of choice. This decision enabled the campus to connect our SIS+ (Student Information System) with Blackboard, allowing classes to be automatically created, registered students to be added in those classes, and faculty of record to be entered. A single portal login for both students and faculty to the new Blackboard system was also created. Following the automated course creation, student and faculty information population, and single sign-on, the adoption of the Blackboard LMS rose considerably.

Since 2003 the campus LMS has been a core mission critical application. The Blackboard product has undergone two major upgrades: once in 2005 to version 7.0, and again in 2008 to version 8.0. There has not been any major downtime for any upgrade. The cost for Blackboard is now over $125,000 annually. This cost, as well as the maturation of several open source learning management systems, necessitated a review of the LMS approach when the Blackboard contract came due for renewal in 2011.

In the fall of 2010, the Academic Senate Information Technology Committee was charged with evaluating two candidate learning management systems, Moodle 1.9 and Blackboard 9.1. These options were evaluated because we are currently using Blackboard 8.0 and upgrading to 9.1 would provide us with more features, fewer clicks, and a better LMS than Blackboard 8.0. Moodle is an open-source option that several CSU campuses have adopted and there is a large community of developers, including the CSU Moodle Consortium, that can help CSUF-IT develop

custom applications and add-ons to Moodle, if needed. Both Blackboard 9.1 and Moodle 1.9 provide largely the same feature set to users and are ADA §508 compliant, meaning that according to US government standards the LMS is accessible to disabled students.

The evaluation process occurred from October of 2010 until February of 2011. Members of the Academic Senate Information Technology Committee were given access to Blackboard 9.1 and to Moodle. The versions evaluated did not have all of the add-on features that would be available in a production version at CSUF (e.g., Turnitin.com), but did have all of the basic elements of each LMS. Each system was evaluated based on a short rubric developed by Chris Manriquez, Matt Ahola, and Shariq Ahmed in consultation with the IT Committee. In addition, the Faculty Development Center and the committee surveyed the faculty about which features faculty preferred. IT provided data on faculty use of Blackboard and a cost estimate for the transition year.

The majority, but not all, of the IT Committee preferred Moodle to Blackboard. The features used and preferred by faculty at CSUF were available in both Blackboard 9.1 and Moodle. The FDC received responses from 412 full-time tenure track faculty, part-time faculty, and administrators about the LMS. For the most part, the features that CSUF users want and use are consistent with the features currently available in Blackboard or Moodle. Interestingly, the most important features were associated with moving courses and materials from semester to semester, perhaps reflecting the anxiety and trepidation faculty have about moving their courses to a new system and the amount of additional workload this might entail. In the short-term, monetary and time costs for transitioning to Moodle will be higher than moving to Blackboard 9.1. However, in the long-term, having no yearly licensing fee will provide some cost savings; moving support and development to CSUF-IT will presumably give faculty and students better service when dealing with LMS problems. As a result of this process, the Academic Senate IT Committee unanimously recommended that CSUF adopt Moodle as its LMS.

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The campus is now entering a new era in the use of learning management systems. For the first time, we can extend the capabilities of the LMS to a new level through better integration with existing campus databases, mobile devices, and third-party software. Many of these services are external to Moodle, such as: lecture capture, web conferencing (Adobe Connect), and e-portfolio systems. Additionally, Information Technology, in partnership with Academic Affairs and Student Affairs, is planning to develop tools to allow on-demand assessment through connections between the LMS and campus student data warehouse. This can assist programs and departments with assessment and advising based on learning objectives. Furthermore, it would facilitate the creation of an early-warning system for at risk students. We are encouraged and

optimistic about the new capabilities that the campus now has as a result of the learning management system decision.

Currently, the Faculty Development Center (FDC) is developing training programs that will start in the summer of 2011 for early adopters. In addition, the FDC and IT are waiting for the results of the Moodle based LMS naming and logo competition to be revealed. [*Editor's Note*: The name selected is Titanium.] IT will then start rebranding the new LMS. The new LMS Website will be available during the first week of May. This website will provide support information for faculty, staff, and administration about the migration from Blackboard to Moodle and how to get user training for the new LMS. The website will also allow faculty to request courses from the existing Blackboard installation to be migrated to the new Moodle system.

About the Authors

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Technological Innovation and Changing Roles of the Professoriate

Lynda Randall

The roles of the professoriate have shifted rapidly over the past decade, and two broad technology trends have largely influenced this evolution. The first is the explosion of information made available via the Internet, and the second is a rapid growth of e-learning technologies that facilitate interactive learning and the use of rich media. In addition to these advances, we've seen a vast increase in demand for online learning that is spurred by globalization, economic demands, and market competition. And to a great extent, the needs and orientations of today's students, who by and large are digital natives, have driven the requirements for faculty to use new technologies and to advance their skills.

Collectively, these forces have shaped the role of professors and required a new set of pedagogical and technological tools for assimilating and packaging information. They have also impacted the ways in which faculty interact with students, with a shift away from traditional office hours toward multiple modes of electronic communication and virtual meetings. In almost every way, technology is dramatically changing the nature of our work in the academy.

A Changing Academic Infrastructure and the Need for Strategic Planning

Across the country and around the world, Chief Information Officers and their IT staff have taken on greatly expanded roles and responsibilities in strategic planning. Their planning must create sufficient infrastructure to fund the increased costs of bandwidth and server space, provide adequate software and hardware, and facilitate training and support. Laptop computers and mobile devices such as

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smartphones and iPads, which may have only recently been considered a luxury, are now essential tools for teaching.

In addition to infrastructure, strategic planning for technology advancement must also consider policies and procedures that ensure quality and productivity. As colleges and universities place more courses, programs, and intact majors online, quality control becomes ever more imperative. One important policy concern for higher education institutions might be the extent to which tenure and promotion requirements should include technology-based skills and achievements. Most of the personnel standards that are currently in place were developed well in advance of the growth of online instruction and the availability of digital learning tools. More than one-third of university administrators polled in a 2008 survey believe that tenure and promotion requirements should to be adjusted to include technology-based teaching criteria (Glenn, 2008).

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On our own campus, UPS 210.000 defines pedagogical approach and methods as one criterion of teaching performance, but neither the general nor specific criteria of teaching effectiveness make mention of the need for technological proficiency. The following statement is abstracted from UPS 210.000:

Teaching

- **General Criteria for Teaching**

Each faculty member shall establish a teaching environment where student learning is central, expectations for learning and student attainment are clearly reflected in the organization, content, and review of their curricula and academic degree programs, and students are provided opportunities to develop the learning abilities, competencies, and skills to contribute to society.

A successful faculty member demonstrates mastery and currency in the discipline, teaches effectively, and helps students to learn both within and outside the classroom.

Approved Departmental Personnel Standards shall address peer evaluation of pedagogical approach and methods, student response to instruction, ongoing professional development as a teacher, and other such evidence as the department deems important.

All evidence shall be included in the Portfolio and Appendices (see Part III.B.).

Specific Criteria for Teaching

- **Pedagogical Approach and Methods**

  The primary objective of pedagogy is to help students to learn. Peer evaluation of teaching performance shall address those factors that contribute to effective pedagogy including the following: the appropriateness of the breadth and depth of course content to the level of each course taught; the currency of the topics and relevancy of the assignments; and the effectiveness and fairness of testing, other assessment, and grading procedures. Faculty members may contribute to student learning by such activities as academic advising, development of new courses, use of innovative approaches to teaching and fostering student learning, organization of pedagogical workshops, supervision of student research or performance, and other similar activities.

Innovations also impel us to examine several other areas of university policy that may not have kept pace with technology. One of these is a potential mismatch between student rating instruments and current instructional delivery and advising modes. For example, students in an online course may not give accurate information to the item "instructor was available for office hours." In addition, department chairs must give careful consideration to the readiness and training of individual faculty members to be assigned to online instruction.

Faculty assignments of responsibility must also consider the increased workload demands of online course development and instruction. Teaching online is particularly labor intensive because of the requirements for content development and the ongoing nature of interaction with students. Online instruction is a potential "cash cow" for higher education, but administrators should not exploit the opportunity to enroll larger numbers of students in online courses at the expense of faculty or to the detriment of quality.

Learning on Demand

Currently, almost 30 percent of college students take at least one course online, and comparisons show that the number of students taking at least one online course in a given semester grew by about one million students between 2008 and 2009 (Allen & Seaman, 2010, p. 2). From 2002 to 2009, total online enrollments in US colleges and universities grew from 5.6 million to 19 million (p. 8). Online learning is a permanent and central part of the academic landscape in higher education. Instructors must gear up and learn to do it well, and this commitment will require significant improvements to the academic infrastructure and institutional capacity for faculty training and student support.

Growing Needs for Faculty Training and Awareness

Advancements in technology pose both opportunities and challenges for faculty members, for whom disciplinary knowledge and expertise no longer suffice as the foundation for teaching. Professors must now work concertedly to hone their technology skills as they struggle to keep abreast of the current research and practice in their respective disciplines.

Added to the demands of teaching, research, and service, the requirements for learning new technology can be overwhelming for faculty.

Sometimes the payoff for technological proficiency is not quite apparent. As faculty become more sophisticated in using technology, they also become more dependent and trusting that the software and hardware they've planned to use will be present and functional in the learning environment. A case in point is the availability of electronic whiteboards in a number of classrooms across the campus. On average, an instructor might spend at least ten hours in training to become minimally proficient in using this technology. The optimal use of the electronic whiteboard requires additional time to locate electronic resources specifically designed for this technology, as well as the use of new software for lesson development. From a personal perspective, imagine my delight in finding that I had a Promethean whiteboard in my classroom, but then frustration when the lesson I had diligently prepared was torpedoed by a recent upgrade of the computer software that failed to include the drivers and plug-ins required for the lesson. Less of a problem, I sometimes found the whiteboard unplugged in favor of an aging overhead projector, or more disastrous, someone had finally written on the touch screen in dry erase marker that was now indelible. Bummer!

The advancement of technology in online, blended, and face-to-face instruction calls for new teaching skills and approaches to content development and delivery

Newly released technology, the Epson interactive projector, may soon make electronic whiteboards obsolete in the college classroom. The BrightLink 455Wi and other models certain to follow can turn any wall, tabletop, or flat surface into an interactive learning environment. It uses digital pens for interacting with digital images and can project an 80-inch image from a distance of only 10 inches. Laptop computers, or perhaps even iPad2 devices, will contain all the software needed to project from the LCD.

The advancement of technology in online, blended, and face-to-face instruction calls for new teaching skills and approaches to content development and delivery. In all of these environments, learner-centered pedagogies such as online collaboration, case studies, and problem-based learning will take on greater importance, while lecturing and modeling will play diminishing roles in instruction (Kim & Bonk, 2006). Communities of inquiry that foster ongoing collaboration and co-construction of knowledge will become increasingly important in both faculty and student engagement and learning.

In a recent study of pedagogy and technology for online education, Bonk (2001) determined that only about 29% of instructors used activities that could be described as "constructivist" in nature, or those requiring sustained effort, critical thinking, collaboration, and engagement; however, student preferences for these kinds of activities were pronounced. In a follow up study, Kim and Bonk (2006) found that the most important skills for online instructors to develop over the coming years are course development and facilitation of instruction.

The prevalence of laptops, netbooks, smartphones, and other handheld devices in the college classroom can also be a boon or burden. Sometimes it's difficult to discern whether an enterprising student is taking excellent notes or simply multi-tasking. But on the other hand, it's nice to assign a student to Google the answers to spontaneous questions that arise in the midst of instruction. The challenge for faculty is to design and deliver instruction that capitalizes on the availability of student laptops, smart phones, and iPads as tools for learning as opposed to what Glenn (2008) refers to as "disruptive innovations."

The widespread availability of information on the Internet, the relative ease of copying and pasting, insufficient training, and a lack of consequence have contributed to an epidemic of plagiarism in higher education. Some students may have succeeded quite well for many years by copying and pasting work from the Internet, particularly in their online assignments. It is more imperative than ever before for professors to teach these skills of information literacy proactively while simultaneously monitoring student work through plagiarism detection tools such as Turnitin.com. Turnitin.com is an online tool that compares digital documents via word match to millions of other documents online, including previously submitted student papers, to determine the extent of originality.

Mobile Learning

M-learning, or mobile learning, is another growing trend on college campuses that reflects the current student culture of wireless and mobile connectivity. The delivery of instruction through mobile devices such as smartphones and iPads facilitates anywhere, anytime access to learning. In this sense, the potential for learning is as ubiquitous as the availability of mobile devices and wireless connections. In line with this trend, textbook publishers have begun to develop e-textbooks for mobile devices. Just recently, CourseSmart introduced their new e-textbook apps for iPad and iPhone with interactive study tools such as highlighting and sticky notes. This technology helps to bridge the gap between existing e-textbooks and the desire for students to hold something in their hands and mark it up as they would a print textbook. (See http://www.coursesmart.com/go/mobile.)

The changing role of the professoriate will most certainly be influenced by the availability of technology, the needs of students, and the demands of the market.

Mobile learning, like other exciting trends in technology, will pose opportunities and challenges for faculty. The value of such tools may not be readily apparent to faculty who themselves are digital immigrants, or may not easily find time to format their materials for mobile devices. Young adults are quite accustomed to text messaging and viewing text on small screens, but many professors may not enjoy this form of communication. The extent to which mobile learning will take hold in higher education depends largely on the acceptance and capacity of faculty.

Technology in Perspective, or Balancing the Challenges and Opportunities for Faculty

The changing role of the professoriate will most certainly be influenced by the availability of technology, the needs of students, and the demands of the market. Our roles as course developers and facilitators of learning will become more and more time consuming as we move to more online instruction. Technological advances will offer both exciting opportunities and significant learning challenges for faculty in coming years. All things considered, the question that remains is not whether faculty are motivated and capable of acquiring the ever changing and rapidly advancing skills for using new technologies, but whether the infrastructure and policies of college and universities will recognize, support, and reward their efforts.

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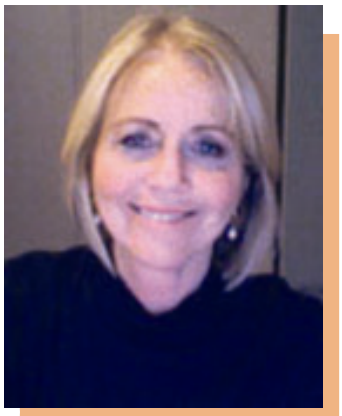

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SENATE FORUM

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Teaching and Learning with 21st Century Titans

Andrea Guillaume

CSUF faculty teach at one of the largest campuses in the largest state university system in the world, and we teach and learn in exciting and uncertain times. Futurists (e.g., Pink, 2005; Robinson, 2011) predict that the digital revolution is just in its infancy, that economic systems will continue to be greatly unpredictable, and that global connectivity—already high—will continue to increase.

The median CSUF student age is 22. Thus, we teach students who were born the year Microsoft released Windows 2.1. Our students were babies when the Berlin wall fell. Throughout their lifetime, the world's population has increased 1.78 billion people and is projected to reach 7 billion this year. Our students saw the election of the first African American US president, and many perhaps even voted in that historic election—their first presidential election.

As 20-somethings, many of our students are branded millennials, a generation known for becoming highly educated and less highly employed. They have a reputation for remaining connected to their parents throughout adulthood, for holding a consumerist view of education ("I am paying for this course!"), and for expecting 24/7 access to information and convenience (McGlynn, 2007). According to a Pew study, millennials are also known as confident, upbeat, and open to change (Jayson, 2010).

As 20-somethings, many of our students are branded millennials, a generation known for becoming highly educated and less highly employed.

How well do such generalizations truly capture all but a small percentage of our students? How well do you know our local educational context today? Try the following quiz. (Hint: Exactly half of the six statements are true.)

	True	False
1. The ethnic and racial profile of CSUF faculty is keeping pace with changes in the ethnic and racial profile of CSUF students.		
2. At least three quarters (75%) of seniors report having a serious conversation with a student of another race or ethnicity weekly.		
3. Students report that collaborative learning experiences (curricular peer interaction) at school are associated with deeper thinking about the content.		
4. Students report spending less time preparing for class than their instructors would expect.		
5. Students are fully wired and have high hopes that their college instructors will make extensive use of instructional technology.		
6. A significant percentage of students (approximately 52%) report that their relationships with faculty are of *less than* high quality.		

How did you do? Find out soon! In this article, I present information about student and faculty impressions of teaching and learning today (the answers to the quiz*)*,give two suggestions based on the implications for us as faculty, and invite us to consider our goals and next steps as faculty as the 21st century stretches before us.

Students, Faculty, and the CSUF Experience

Let's see how you did on the quiz.

- Item 1: **False**. Trends in CSUF student demographics ***are*** consistent with national changes. Our students are increasingly diverse. Thirty percent are Hispanic, 21% are Asian, and 3% are Black. However, our faculty composition has not changed much in the last ten years. Only 5.4% of the faculty are Hispanic, 18% are Asian, and 4% are Black.

- Item 2: **False.** The National Survey of Student Engagement (NSSE, in which CSUF participates) finds that only 60% of students surveyed reported often having a serious conversation with a student of another race or ethnicity.

- Item 3: **True.** NSSE results indicate that our students report often engaging in curricular peer interaction such as preparing for course assignments, reflecting on exams, or working on projects together. Students who report these peer interactions also report engaging in

deeper learning such as integrative, higher-order, and reflective learning (the experiences are correlated).

- Item 4: **True**. For every major examined by NSSE, students reported spending less time than their faculty expected to prepare for class. However, students reported spending more time than their faculty ***believed*** they spend preparing for class.

- Item 5: **False**. The 2010 results of the ECAR study, an ongoing national survey of college students' use of technology indicate a strong trend in students' desire for ***moderate*** instructor use of instructional technology. Further, this survey and others indicate that students' use of technology—although on a constant rise in life outside school—is not consistent. Students tend to segment their use of technology into different components of life. For instance, most use the Internet, handheld devices, and social networking services daily. In fact, the age gap in technology use is swiftly declining; a full 58% of students 50 and older report using social networking sites like Face book. Nonetheless, students report very low usage of e-readers, and many feel underprepared for the use of particular course-based technologies.

- Item 6: **True.** Only 49% of first-year students who responded to NSSE judged their relationships with faculty to be of high quality. By senior year, that percentage increases to 58% (still short of 2/3 of our students reporting high quality relationships with faculty).

Survey Says: Gaps!

Although this six-item survey gives just a glimpse into some aspects of the college experience, it does reveal a number of disparities in experience and in perceptions. First, we see a gap in the ethnic and racial trends of student composition and that of the faculty. Second, we see a gap between the opportunities students take to hear the perspectives of people who are ethnically different from themselves and the prevalence of opportunities we might desire them to have. Third, we see a gap between students' reported preparation for class and their faculty's expectations and beliefs about that preparation. Fourth, we see gaps between how students use technology in different facets of their own lives, and we might be surprised by their expectations for our instructional technology use in our courses. Finally, we see a gap between the percentage of students who call their relationships with faculty high quality and the percentage we might desire.

Implications for Faculty as Teachers and Learners

Two implications strike me immediately: the importance of gathering and using real data about our specific students; and the need for us to together consider our philosophical commitments to where we as teachers need to take our students in the years ahead, and how we would best take them there.

Many interested in education—primarily at the P-12 level—have considered what students should learn and be able to do given the demands and uncertainties of the days ahead

The Importance of Gathering and Using Real Data about Students to Get to Know Them

Examining nationwide and even campus wide research on students' experiences provides a bit of data about how some students might experiencing college. However, it is no substitute for getting to know the specific students we work with daily (Bonfiglio, 2008). We can use class assessment techniques such as anonymous Blackboard (or Moodle) surveys, active learning strategies (like Response Cards) where every student responds to questions , instructional discussions, emails, discussion boards, and those one-to-one conversations over coffee, to help us move beyond group labels and learn about our students as individuals. When we understand our students and their expectations more fully, we are well positioned to meet their learning needs *and* help them to understand (and meet) our own expectations.

It seems a perfect time for us to consider, as a community, our philosophical commitments for what we as teachers should accomplish with our students.

Similarly, we can construct learning opportunities so that students get to know each other and work with a variety of members of our classes. Brief experiences such as peer interviews and instructor-assigned partner groups can aid our students in moving out of their own comfortable friendships to expand their circle of peers and fellow learners.

Considering Commitments of Where to Take Our Students and How Best to Get Them There

Many interested in education—primarily at the P-12 level—have considered what students should learn and be able to do given the demands and uncertainties of the days ahead (examples are the American Association of School Librarians and the Partnership for 21st Century Skills). They have developed standards with similar themes. Students need to develop:

- Flexibility, adaptability, and the skills to address complexity and uncertainty
- The ability to innovate
- Multiple literacies, including literacy in information and communication technology
- Critical thinking and creative thinking
- The dispositions and skills to appreciate and collaborate with a wide variety of people.

The future is anyone's game, though. These P-12 recommendations may or may not match university faculty's commitments and priorities for our college students. It seems a perfect time for us to consider, as a community, our philosophical commitments for what we as teachers *should* accomplish with our students. For example, do our students need more of the same technology they come to us with, or do they need something different (Musgrove, 2007)? What roles do our individual disciplines play, given the shifting demands of the 21st century? How will learning our individual disciplines better prepare students with the attitudes, knowledge, and

skills that will contribute most to their education, their personal goals, and their productivity? What are the skills and dispositions that cross our disciplines upon which we might capitalize to fully educate the next generation? Philosophical questions such as these that must be debated each generation and in every local context (Guillaume, in press).

Finally, today brings us the perfect opportunity to consider our own current knowledge and skills as teachers and consider what might come next for us as teachers. What knowledge and skills do you currently possess that are effective at bringing about durable, transferable learning for students? Are you ready to share them? What skills would you like to add next to your teaching repertoire? What strategies and approaches to teaching and learning would we like to explore together? The Faculty Development Center is enthusiastic about your accomplishments as a teacher, and we're eager to be part of the journey that we and our students take into the 21st Century. How can we help? Let's talk.

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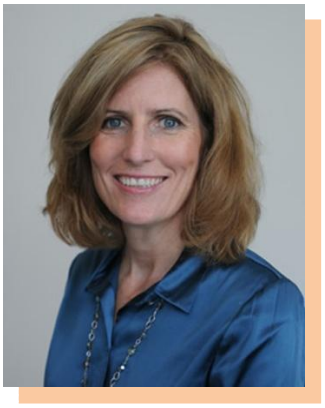

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The Importance of Collaboration in Research

Melanie Horn Mallers

"Alone we can do so little; together we can do so much." Helen Keller

"When all think alike, then no one is thinking." Walter Lippman

Over recent decades, there has been increasing interest among researchers to engage in collaboration. This can include working together to achieve a common goal of producing new, significant knowledge, and usually it is in the form of journal and symposium article publications, monographs, review papers, book chapters, technical reports, as well as general advice, input, and support. And although collaboration can be time-consuming, require strong organizational and leadership skills, as well as commitment, most scholars consider it a good thing and something to be highly encouraged (Katz & Martin, 1997).

As research becomes increasingly multifaceted, collaboration allows for the ability to successfully complete challenging research projects. In my own personal research, collaboration with colleagues has exposed me to more advanced statistical techniques, allowing me to both improve my data analysis skills and ability to publish high-quality data. Not surprisingly, collaboration has been shown to increase the likelihood of productivity and publication rates (Katz & Martin, 1997). Furthermore, multiple co-authorships on research projects also have been shown to increase the meaning and impact, as well as visibility, of a paper (Katz & Martin, 1997; Lawoni, 1986).

Besides enhancing opportunities for publications and personal productivity, research collaboration has become a necessity for many, especially given the growing financial need to secure external grants and monies.

Research collaboration is also a way for academics to socialize. With our ever increasingly busy and compartmentalized lives, working with others on research projects oftentimes serves as a rare opportunity to get together with friends. I personally enjoy collaborating on projects with other working parents; while our children

are having a "play date", we can brainstorm and map out our ideas, methodologies, and research design. In fact, some of my most creative and fun research sessions occurred while hanging out at a local park.

Besides enhancing opportunities for publications and personal productivity, research collaboration has become a necessity for many, especially given the growing financial need to secure external grants and monies. Grant-writing is often only possible when faculty integrate their knowledge and expertise into a shared project. Furthermore, Requests for Proposals (RFP's) increasingly require that research projects are interdisciplinary and comprehensive in nature.

It is ultimately through collaboration that we can reinvigorate our ideas and stay productive, but more importantly, motivated and inspired. To that end, collaboration allows us to do what we do best: evolve our discipline and improve the quality of life for ourselves and for others. If you are interested in collaboration, please note that several resources on campus are available to you. For example, on the Office of Grants and Contracts website there is a link for the CSUF Faculty Experts Guide (http://my.fullerton.edu/facultyexpert/index.aspx) where you can search for CSUF faculty based on your research interest. Consider also talking with your department chair or dean as individual colleges may house their own grants officers who can provide assistance with finding colleagues with similar research areas. And, of course, as the Scholarly and Creative Activities Coordinator for the Faculty Development Center, I am here to provide support to you as well. Please let me know how I can help!

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SENATE FORUM

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Librarians, Faculty, and the Google Generation: Enhancing Student Research through Collaboration

J. Michael DeMars

Today's college students, often labeled Millennials or Echo Boomers, are awash in a sea of information. Many of them are connected to a constant stream of digital data, thanks to Internet capable mobile devices like smartphones and tablet computers. It has been said of the Millennials that if they are awake, they are online (Lewin, 2010), whether they are keeping in touch with their peers via social networks or accessing their coursework via an online learning management systems. This generation is accustomed to getting all the information they desire on demand, and the means they use to access that information are becoming increasingly more efficient and simple to use.

Powerful research tools like Google give students the ability to discover information on virtually any topic at any time. A simple search on Google generally brings back results numbering in the millions, though most users rarely venture past the first page (Eysenbach & Kohler, 2002). The effective relevancy ranking algorithm that Google employs and the sheer volume of the results that are returned leads many to believe that they have accessed the best data available on their topic (Deborah, 2005). However, questioning the authenticity and validity of the information doesn't appear to be a top concern (Graham & Metaxas, 2003). The simplicity of this amazing research tool and the instantaneous results that it delivers can make research seem effortless. It is no wonder that today's over-worked college students often rely on search engines like Google as their primary source of academic

Students are often unused to performing advanced searches and may feel overwhelmed by the sheer number of databases the library offers.

investigation (Chang, Morales-arroyo, Komarasamy, Kennedy, & Liang, 2010).

The modern academic library, by contrast, can seem complex and unfamiliar to students, undergraduates in particular. Students are often unused to performing advanced searches and may feel overwhelmed by the sheer number of databases the library offers. They are used to one source of information, Google, and one search box to find that information. Given the myriad of information sources the library offers, it is little wonder that many students retreat to the comfortable confines of the Google search interface. However, as many faculty members on campus can attest, the data from the commercial Internet that students are citing can often be described as dubious.

Library instruction sessions provide librarians with an opportunity to show students how to make effective use of the library's resources while providing them with the tools necessary to interpret and apply the data that they discover.

The Pollak Library seeks to alleviate feelings of apprehension and confusion that some students may associate with scholarly research by facilitating access to high quality academic information. The library also strives to teach the skills necessary to evaluate, use and cite sources effectively. These goals are reached by partnering with faculty to provide their students with simplified access to resources relevant to course assignments and the information literacy skills they need to interpret search results. Librarians and teaching faculty working together can make the research process less intimidating.

Teaching Research Skills

Library instruction sessions provide librarians with an opportunity to show students how to make effective use of the library's resources while providing them with the tools necessary to interpret and apply the data that they discover. Instruction sessions can be scheduled online using the instruction request form. After the session has been scheduled, the faculty member is then contacted by a librarian, typically one who has experience with the course subject. The librarian and the instructor then work together to design a session that effectively targets the needs of the class, whether it be instruction on how to formulate a research topic, defining what a scholarly article is, or how to conduct an advanced Boolean search. These hands-on sessions typically last one hour and a driven by the requirements of the course research assignment. By working with a librarian ahead of time, faculty can be assured that their students will be well prepared for their research assignment.

Library instruction sessions can be most effective when they are paired with supplementary online materials. The Pollak Library has developed software that allows librarians to easily create discipline and course-specific web pages, which facilitate student access to information relevant to their assignment. These course guides are constructed using modularized pieces of content that can be centrally created, shared, and distributed, amongst the content creators ensuring the information on each guide remains current and accurate. Course-specific guides,

which are designed with the needs of the class and the research assignment in mind, consolidate resources that are most pertinent to a given class.

The Customized Library

A typical course guide, which can be found on the Class Specific Guide page, will provide students with access to library resources like academic journals and databases. These resources are selected by a librarian based on their relevancy to the research assignment, which quickly direct students to the information sources that they need. For example, a guide for a Kinesiology course will provide access to databases like SportDiscus and Pubmed, leaving out other discipline-specific databases like Business Source Premier. Course guides strip out the parts of the library that the students in that class don't need, which greatly simplifies the research process. Some guides make use of customized search tools which can search multiple databases simultaneously, using an interface that looks more like Google than an academic database. Other guides may employ search tools that access only websites that are preselected by the librarian based on their relevancy and validity. Additionally, guides are often populated with video tutorials that cover vital information literacy topics like how to evaluate information found on the web. Instructors can work with librarians to help create a guide that complements the course as a whole and provides students with a customized research experience.

Through collaboration librarians and faculty can find a way to connect with the "Google Generation" and make academic research more user-friendly.

The course specific guides are heavily utilized and are appreciated by both faculty and students alike. Data taken from surveys administered to the faculty who brought their class in for information literacy instruction sessions attest to this. One instructor commented that class guides "simplify things tremendously for our students." Another faculty member remarked that their class "really appreciated the customized website," while another still said the guide "has been very popular with students." Our internal statistics confirm the popularity of these research tools. We collect statistics on our website traffic using a variety of tools, and these data can tell us what students are searching for on our site. The data show Laura Chandler's Health Science 220 course guide is consistently one of the most searched for items on our website. In speaking with faculty, many have commented that the academic quality of their students papers have increased since their course guide was introduced.

Librarians and faculty working together can make scholarly information more accessible and easy to decipher. Course specific guides offer students access to relevant scholarly information and library instruction sessions offer them the tools they need to evaluate and use that information. Through collaboration librarians and faculty can find a way to connect with the "Google Generation" and make academic research more user-friendly.

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SENATE FORUM

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On Doing It Because We Can: Linking Online Instruction to University Goals

Jon Bruschke[i]

The very first sentence of the preface to Mary Shelly's *Frankenstein* includes a grave warning to a "Dr. Darwin," who it turns out is not the famous philosopher of evolution, but his Dad, who was doing experiments reanimating dead bodies with electricity. While the rest of her introduction carefully lays out that she isn't out to bash on any particular science, she is seeking to "preserve the truth of the elementary principles of human nature." The truth she seeks to address is hard to miss: Doing something because we can, and without a clear understanding of the full implications of it, is seriously dangerous.

The point I hope to develop here is not that online instruction is inherently good or bad, but that if we pursue it without fully considering its context and knowing what we want to accomplish we may find ourselves with more of a monster than a creation.

Are we racing forward like Dr. Frankenstein, intoxicated by possibility but blind to consequences? One of the more consistent observations that commentators make is that advocates of online education frequently advance the virtues of online instruction with little or no evidence to support their claims or with a very selective reading of the research literature.[ii] The Integrated Technology Strategy (ITS) of the CSU seems cut in this mold, and makes no mention of any potential shortcoming of online education, nor does it express any concern for anything other than expanded online offerings. They advance online instruction as a vehicle to promote more corporate involvement, suggest that online education might fully displace one physical campus, and assert that online instruction fosters access and "accountability."[iii] But does it improve the quality of instruction? The ITS cites no research.

What might the monster look like? Linda Stine, ultimately an advocate for hybrid instruction, began with this warning: "Teaching online is harder, more time consuming, less rewarding to many instructors because of the personal remove [from students], and often less fairly remunerated than teaching in a traditional environment" (p. 34).[iv] This is not to say that there is not a role for online instruction, but simply that we should not assume that curricula can be moved seamlessly online and used to teach mass sections of students with fewer teachers. A key point is that good online instruction is as resource-intensive as good face-to-face instruction.

This essay first explores what might be gained or lost with conversion to online curriculum, and then turns attention to how we might best plan.

What We Stand to Lose

There is a lot at stake; here is the quick list of what we may lose if face-to-face instruction is no longer available: (1) non-cognitive learning outcomes, (2) unique benefits of face-to-face interaction that online interaction cannot replicate, (3) experiential elements of college life, (4) the depth and complexity of curriculum, (5) the impact of students who will fail in an on-line environment.

A first issue is that there is far more to college than simply the acquisition of knowledge. A common pedagogical approach is to say that learning has cognitive, affective, and behavioral components. An affective outcome is one where a student connects to the material at an emotional level; a behavioral outcome is one where students can incorporate the material into how they act. While cognitive outcomes from an online class may be equivalent to those of face-to-face instruction (research will be reviewed below), there is little reason to expect an online experience can produce equivalent behavioral and effective outcomes.

Take a quick example: It is possible to teach a public speaking class on-line, and have students Skype in their speeches. Other students can view, and the instructor can grade the speeches. But does that really prepare a student to make a speech in front of a large, live crowd? Does the change in format pose a serious threat to the acquisition of the behavior the public speaking class is seeking to provide? Probably so. It's not hard to argue that a good public speaker also needs the ability to give a speech into a camera without an audience, but that's a far cry from saying it's the only skill they need.

Our students need the ability to interact with others face-to-face, both as a question of personal development and as a question of business skills.

The second thing at risk is the unique value of face-to-face interaction. I'll bracket off another enormous body of literature, and simply say (as a guy with a Ph.D in Communication) that there are elements of face-to-face interaction that can never be simulated online. Imagine you were the parent of a teenager who had thousands of on-line friends whom he interacted with virtually on a regular basis, but no friends that he ever met face-to-face. Would you be worried? Further lost in the virtual realm is the personal

accountability related to facing a professor and classmates regularly. For those students who fail to complete assignments and readings, online courses remove one critical tool teacher might use to motivate them.

Simply put, our students need the ability to interact with others face-to-face, both as a question of personal development and as a question of business skills. Virtually every survey of businesses that asks what skills they want college graduates to have finds "communication skills" ranked at or near the top. And they don't mean the ability to send clever text messages; they mean the ability to get along with others in person and work together in teams.

A third thing at risk is the college experience, which includes far more than time spent in the classroom. Volumes of research (that I'll reference without footnoting) show massive benefits to student involvement in out-of-class but campus-related activities, such as groups, clubs, events, and teams. The extent to which online "communities" can replicate these benefits is at best almost entirely unstudied, but there are lots of good reasons to be highly skeptical that it can.

Fourth, the depth and complexity of curriculum is threatened. One of the first lessons that Amazon.com found was that the length of book review articles had to be shorter on-line. While readers were willing to read multi-column Sunday Times review of books, they rarely clicked on a second web page to read the end of an article. Brevity and conciseness are good as far as they go, but the Cliff Notes version of Shakespeare is NOT the same as reading Shakespeare. Twitter, Facebook, and the various other methods of communication common to the wired-in students do facilitate quick connections, but it would be a horrendous error to adjust our curriculum to match the medium. Facebook is probably a more effective means than Moodle of getting quick classroom announcements out, but it is no substitute for the core curricula.

To assess how real these threats are, it is worth taking stock of how current online programs are doing. For-profit, on-line universities have a horrible record; dropout rates are much higher (57%) than not-for-profit equivalents, and far fewer students are able to graduate and repay their student loans.

Fifth, it is a consistent research finding that some students do <u>not</u> do well in an online environment. For students who are self-motivated, who are more comfortable interacting virtually than in-person, and have the skill set to handle complex material in a virtual way, an online environment may be excellent. Students who do not fit this description may tend to flail and fail. Given the sharp increase in remedial needs for the population the CSUs serve, I think we can expect more students in the latter category than the former. Pushing those students into online sections is likely only to increase the failure rate. Furthermore, the online environment penalizes those students without consistent access to up-to-date (fast) computers with fast Internet connections. This is a line clearly drawn along socioeconomic lines.

If we were to transform CSUF into an all on-line institution, all of these threats would be immediately realized. All of these things are lost for any student enrolled in an all on-line program. But, of course, we are not likely to be entirely online any time soon. My worry is that the faster we race toward online education the more we erode these core benefits. If, for example, 20% of our students were taking exclusively online courses and never coming to our campus, it would be a safe bet that those 20% would not be involved in campus groups, would be lagging in behavioral and affective learning outcomes, and probably lacking face-to-face communication skills.

To assess how real these threats are, it is worth taking stock of how current online programs are doing. For-profit, on-line universities have a horrible record; dropout rates are much higher (57%) than not-for-profit equivalents, and far fewer students are able to graduate and repay their student loans.[v] Unless we are able to completely dismiss these failures as the product of poor business practices, it is worth carefully examining the role that online instruction has played in these failure rates before we fully embrace it.

What We Stand to Gain

Unless the call for giving expanded access comes with additional funding, it simply seems that online instruction is another way we are being asked to serve more students with fewer resources.

There is little doubt that some students will do better in an online venue than in a live classroom. One of the key concepts in my native field is Communication Anxiety, and there can be no doubt that some students who would never join a discussion during a face-to-face class would join an online discussion.

For some professors, online instruction may be an effective way of dealing with an ever-increasing workload (although the consensus seems to be that there is more workload on the front end to set up an online class). Such instructors may enjoy the method of instruction better and have a skill set that is best suited to online teaching. Any solution must protect the progress these instructors have made.

Third, some content for some courses may be better delivered in an online format. If a video is an important part of a class experience, putting the video online would allow students to pause or replay portions of a video they found confusing. Doing so in a classroom would not work. There are undoubtedly other (and better) examples.

What Just Doesn't Hold Water

A common reason advanced in favor of online instruction is increased "access," presumably for students who are unable to make it to the physical campus to take courses. Given that in the Fall of 2011 CSUF turned away 10,000 qualified students who could make it to the physical campus, it is hard to fathom that there is a need to reach out to additional students. Since there are 23 CSU campuses and each serves a distinct geographical region, it is not clear why reaching out to

more students beyond our area is a worthy goal when we already can't serve the students in our region. Unless the call for giving expanded access comes with additional funding, it simply seems that online instruction is another way we are being asked to serve more students with fewer resources.

On the other hand, there are certainly gaps in the geographic service areas of the CSU system, and a student living in San Clemente, for example, would probably not be able to get a degree without relocating. Depending on the life circumstances of the student, the online option might be the only realistic means for getting an education. However, it is worth mentioning again that teaching additional students will require additional resources, and none appear to be forthcoming.

If the job of a CSU is to be accountable to future employers, and to make our graduates competitive in the workplace, we should be running from online education and not embracing it.

A second claim is that brick-and-mortar costs can be saved. These savings are unlikely to be realized unless online instruction actually results in fewer buildings or campuses; any cost reduction from having a campus use 10% less classroom capacity is minimal, and likely to be at least partially offset by higher course development costs. It is worth noting that, at present, when budget cuts force reduced course offerings, the savings do not come from lower facility costs but from hiring fewer faculty.

A third viewpoint is that online education somehow enhances "accountability," a notoriously slippery concept. However, whatever that term might mean, employers overwhelmingly favor traditional to on-line degrees. One recent study sent out job applications with identical qualifications except that one showed an online degree and one showed a traditional degree. Of the 269 responses, 96% of employers preferred the candidate with a traditional degree.[vi] Employer surveys consistently report similar results; a recent Vault Inc. study showed only 4% favored online degrees. If the job of a CSU is to be accountable to future employers, and to make our graduates competitive in the workplace, we should be running from online education and not embracing it. Again, I am not arguing that online education has no place, only that accountability to the public is not a justification for it. Indeed, the first thing we are accountable for is to provide a quality education. Can we do that in an online environment?

What the Research Really Shows: Quality, Not Format

A much-heralded development was the publication of a 2010 Department of Education (DOE) meta-analysis[vii] that concluded that online offerings were "modestly" better than face-to-face classrooms and that hybrid courses fared the best.

Few reviewers accept these conclusions uncritically. A separate meta-analysis found the results to be "spurious"[viii] or plagued by a list of methodological issues that made direct comparisons difficult.[ix] Others have commented that the DOE study does not hold for university courses.[x] Two

different meta-analyses and one literature review could not find either delivery method superior.[xi] Some subsequent research has found a contrary conclusion and produced data to show that live courses are better.[xii] A rather disturbing and fairly consistent finding is that some groups – notably Latinos and unprepared students – do less well in on-line environments.[xiii]

Online instruction will lower the quality of instruction unless instructors provide a large amount of individualized online attention to students.

A consensus seems to be emerging that the media of instructional delivery is not a crucial factor per se, but that other factors determine the success of an on-line course. The list of possible factors is fairly large. The amount of synchronous interaction, whether on-line or in person, may be crucial.[xiv] The extent to which on-line content is interactive and hands-on may determine learning outcomes.[xv] Success may require student (and presumably faculty) training,[xvi] and student learning characteristics or overall academic skill level may play a crucial role.[xvii] In a nutshell, many authors conclude that the particular methods and quality of instruction are more significant factors than the medium.[xviii]

The Resulting Double-Bind

This brings together two points that are rarely discussed together, and almost never pointed out by advocates of on-line instruction: The typical advantage of web-based information is that it is "scalable," that is, it can be broadcast to a large number of students, presumably with fewer instructors or with an instructor exerting less effort.[xix] But, on the other hand, the success of the course is largely determined by the amount of virtual interaction, which requires smaller student-to-teacher ratios. Hence, the research at this point suggests most clearly this conclusion: ***Online instruction will lower the quality of instruction unless instructors provide a large amount of individualized online attention to students.***

Put in slightly different terms, we can make online education scalable, but only if we sacrifice quality. We can insure quality in online instruction, but only if we don't make it scalable. I know of no study that demonstrates that a mass-delivered, standardized online course is capable of producing comparable learning outcomes compared to a smaller-section, face-to-face equivalent.

Why the Gains Threaten the Losses, Unless We Make a Plan

Given the benefits and drawbacks, it seems apparent to me that a curriculum that is balanced is the best. It may be true that some students do better in an online environment, but those students will graduate and need to communicate in face-to-face relationships, and allowing them to graduate without ever having worked on improving those face-to-face skills would be doing them a huge disservice. An analogy to physical education is apt: Some of our students are horrible athletes, but those are probably the students who most need the PE requirement.

Which gets us to the Frankenstein question. Why does the pursuit of online instruction threaten face-to-face instruction? Given current trends, I believe we are far more likely to become too online-heavy than online-light.

What Happens if we Pursue Scalability at the Expense of Quality?

All of the bad reasons for adopting online classes make them administratively attractive (which is not to say that administrators as people favor them, only that they make the FTES balancing act easier). It is easier to expand the size of online sections, since no physical space is required, and because grading of standardized assessments is easier to automate.[xx] Declining budgets make it likely there will be more pressure to virtualize anything that can be virtualized because of cost savings.

Unless specific criteria are set on the number of online courses, there will be considerable administrative pressure to expand them indefinitely.

The success of online instruction in some areas will create enormous pressure to utilize online instruction where it is inappropriate. Imagine that it turns out that computer programming languages can be taught very effectively online and the ECS college was able to offer a mass-enrolled, 250-student section that featured exclusively recorded lectures and online, automatically graded exams. The final project could be programming code that a part-time person could be hired to grade on an hourly basis. The cost savings would be enormous. (I'm not saying that ECS has any such plans in the works, I'm only trying to imagine what a fully scalable and resource-saving course might look like.)

Imagine, at the same time, that the "Interpersonal Communication" courses were entirely inappropriate for online sections since their point was to help people improve their face-to-face communication. They would require a separate instructor for every course, and probably sections of 25 people or fewer. The same might be true of theater courses, science lab sections, etc.

One obvious remedy would be to equalize resources across departments and colleges; in this example the FTES savings in ECS would be transferred to COMM. Is there a polite way to say how likely this is to happen? I think there is enormous pressure for each college to keep its own FTES savings, and without serious effort exerted in the opposite direction there can be little doubt that the most likely response would be that ECS was "taking our university into the 21st century" and the right thing to do would be for COMM (in this example) to replicate the "successes" of online instruction elsewhere.

I am not saying that any specific administrator would say this, and I am not saying that there is a lack of appreciation for the idea that some curricula is best taught in person or in small sections. But I am saying that the administrative pressure is real and is likely to trump all other concerns unless we codify an integrated policy that establishes what should and should not be done in online education.

A direct analogy to our tenure-track percentage can be made. Although all agree that it is valuable to have a large percentage of the teaching force be tenure-track faculty, unless specific targets are set and considerable effort is made to attain them, administrative factors will exert continual downward pressure on the percentage of faculty that are tenure-track. Unless specific criteria are set on the number of online courses, there will be considerable administrative pressure to expand them indefinitely.

What Happens if We Pursue Quality at the Expense of Scalability?

While some might contest the conclusion offered here – that good online instruction is as time-consuming for instructors as good face-to-face instruction – there is a virtually unanimous belief that setting up an online course is more time-intensive than setting up a face-to-face course. For these reasons, there are stipends and release time offered for online course development. Presumably, the justification for this is that in the long run having online courses will be a net cost savings, although this can only be accomplished if online sections have higher SFRs or are more frequently taught by part-time-faculty (or if, as Stine warned in the opening quote of this essay, faculty are unfairly remunerated). They also require technical support.

If, however, online courses require the same effort as face-to-face courses, and they require more effort to set up, the only conclusion is that they are a more expensive way to offer courses. This can only trade off with face-to-face sections or must be funded with increased SFR (student-faculty-ratio) in the face-to-face sections. We could charge more for online courses, but this is tantamount to creating a two-tier pricing system where some students are paying more for lower class sizes (an ironic situation if they still lose out on the benefits listed in the opening section), and very much cuts into any justification based on "access."

All We Have to Do Is Nothing

This is not the place to take on the issue of whether our campus should wholeheartedly endorse corporate partnerships, embrace calls for "accountability" when there is no doubt the CSUs are doing immensely valuable work with far less support than they once received, or whether after 2,500 years of success in face-to-face instruction we wish to move to a virtual campus. But since the Chancellor's Office sees online instruction as a key vehicle to move in these directions, now is the time to address these potential concerns **before** we move forward with more online offerings.

What might be most useful is that technically adept faculty members work on an evolving "best practices" document that can guide other faculty through new methods for online courses and track the application of new technologies for instructors.

The Principles to Pursue: Keeping the Monster at Bay

Starting with the dual premises that attaining a balance between online instruction and face-to-face instruction is crucial, and that the greatest danger comes from online instruction offsetting face-to-face instruction when it is not appropriate to do so, there are some clear policy directions the CSUF campus can take to help us get to a balance.

- Codify the value of a physical campus. The advantages of a physical campus suggested here, or in a modified form following some campus discussion, should be written into the Missions and Goals, UPS documents, and perhaps even the Constitution. A task force is currently working to revise UPS 411.104; similar groups could create language for other relevant documents.
- Insure flexibility in section offerings. Given that different students succeed in different formats, where multiple sections are offered students will be best served if some sections are offered online and some sections are offered face-to-face.
- Student progress in online sections should be carefully tracked. The Office of Analytical Studies should be charged with tracking withdrawal rates, student ratings, and success rates for online sections and compare them with traditional equivalents. This data can help identify which students are most likely to succeed, which courses are best suited for online delivery, and areas in which online instruction might simply not be working.
- Place limits on the total number of online offerings. A working group should study appropriate limits on the total number of online sections offered, the total number of online units a student may count toward graduation, and the total number of entirely on-line programs.
- Retain faculty control. UPS documents should codify that course format, including the use of technology, is a decision best left in the hands of the faculty member delivering the content. Identifying the ownership of online content is a crucial issue.
- Codify in an appropriate document that online courses should not be offered for the purpose of, nor should they result in, higher student-to-faculty ratios. They should especially not be used to reduce the total number of faculty.
- If the purpose of online instruction is to grant access to students who are unable to physically reach the campus, enrollment in online sections should be limited to such students.
- It is worth considering a moratorium on new online courses or programs until our goals for online instruction are debated, settled, and codified.

Some Best Practices Suggestions

If the quality of instruction is crucial, how best to insure it? CSU Fullerton's own Jon Taylor (Geography) wrote about online instruction a decade ago, outlining the advantages and pitfalls.[xxi] Two dangers Taylor observed seem especially poignant: Corporate control of curricula, and the right of faculty to "make decisions about what types of technology they used in their own course – a right normally taken for granted" (p. 19). These dangers make it unlikely that top-down mandates about course content for online instruction are the answer to improved quality. Knowledge about what factors are crucial is advancing so rapidly, and indeed the technology

itself is progressing at such a rapid pace, that any centralized approach is likely doomed to failure.

Faculty are in the best position to assess what content they can best utilize, and they are in the best position to know what is working for their students.

What might be most useful is that technically adept faculty members work on an evolving "best practices" document that can guide other faculty through new methods for online courses and track the application of new technologies for instructors. On the CSUF campus the E-Learning Consortium has already started to undertake the task; the Faculty Development Center might be in a good role to facilitate and help disseminate their activities.

Although faculty have yet to work out the best methods for online instruction, there can be little doubt that teaching will be most effective when matched with student learning styles, when there is a large amount of synchronous virtual interaction among students and between students and the instructor, and when the online content is interactive and hands-on, rather than simply a collection of posted readings and videos. Of course, all this will likely require more resources, not fewer.

Conclusion

There are benefits to be had from online instruction. As always, however, we must match our organizational goals to our policies.

Are we seeking to replace the number of buildings or campuses to save money? If so, we should put these goals into the campus master plan and add up the savings and costs. If there are net costs, we should figure out how to fund them. If there are savings, we should decide how they will be allocated. And, if we truly wish to replace physical space, we should acknowledge that we are moving into an all-online format.

Are we seeking to expand access to students outside of our geographical service area, or on its periphery or otherwise housebound? If so, we should figure out how many sections are necessary to serve such students and give them first access to online courses. Further, we should decide why we are seeking to serve such students when we have turned 10,000 students away from our physical campus and since accepting such students offers no brick-and-mortar cost savings (since such students wouldn't be attending the physical campus anyway).

Are we seeking to insure quality? If so, we should seriously consider the five benefits of a physical campus, and ask difficult questions about how those are threatened by online instruction, regardless of whether it costs or saves money.

If we simply expand online courses and programs without answering these questions we risk our final product turning out very much like Dr. Frankenstein's.

About the Author

Jon Bruschke attended CSUF as an undergraduate from 1985-1988, receiving a degree in HCOM and competing on the debate team. He received his MA from CSUF in 1990 with Stella Ting-Toomey as his advisor. After receiving his PhD at the University of Utah, he taught for 3 years at Baylor University before returning to CSUF in 1997. He has served as a professor and the debate coach until his retirement from the debate coaching position this year. He was recognized as the national debate Coach of the Year in 2004 and was awarded the Ray Buchanon debate coach of the year award from Pepperdine University in 2008.

His interests include computer programming, and he is the developer of the debateresults.com website, the central data portal for all intercollegiate debate activities. He has served two terms on the Academic Senate, and was a member of the Senate Executive Committee in 2010-11.

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