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Abstract

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COLLABORATING FOR THE MORE EFFECTIVE
INTEGRATION AND USE OF TECHNOLOGY
Track IV: Rethinking User Services
29 November 1995, Wednesday, 2:45 pm
Kenneth E. Pflueger, CIO
Director of Information Services
California Lutheran University
Thousand Oaks, California

Abstract

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Background

California Lutheran University (CLU) is a small, comprehensive university with about 2700 students and 110 full-time faculty, 29 majors and 4 Masters’ degree programs. During the months of July/August 1994 the University underwent a major transformation with the installation of a new ATM ready digital phone system, a fiber optic backbone with all staff/administrative/faculty offices, classrooms and the residence halls (one port per pillow) connected to the campus network with level 5 copper. The University went virtually overnight from a couple of pockets of technology with two stand alone local area Novell networks, to having more technology than most people knew what to do with, and all interconnected.

Introduction

This major commitment of resources by the University thrust technology into the forefront of the University’s strategic planning process which includes as a major goal the integration of the use of technology into the operational and educational environments of the University. I believe that the prioritizing of this goal helped foster an environment that was open to collaborative efforts. The University’s commitment to technology and its desire to get the most out of its investment were further inducements to collaboration as the University continued to define and refine its vision for a sophisticated, user centered technology infused into all aspects of university life.

Four sub-goals have been delineated under this main goal:
Instructional Goals

Utilize technology to enhance the quality of student/faculty interactions.

Integrate technology significantly into the teaching/learning environment in order to equip students and faculty with knowledge/skills they will need to live and work in the 21st century.

Administrative Goals

Utilize technology to increase the efficiency and effectiveness of work processes.

Provide students with a higher level of service and more timely information.

Implementation of Goals

These goals presented a tremendous challenge to the Office of Information Systems and Services (ISS) which was charged with providing leadership in accomplishing them. These goals, however, have also ushered in a period of great professional and personal satisfaction and collegiality among ISS staff and across the entire campus. In the tamer pre-network days (pre-September, 1994) a fairly traditional training program was conducted with academic computing, the library, administrative computing and telecommunications each providing their own workshops. While the workshop offerings were aimed at raising the skill level they often ended up being sessions aimed at trying to convert people to use technology. In retrospect, the training programs were, more often than not, too general and did not address the specific needs of individuals and departments at CLU.

Evaluation of Former Training Program

Post-network and with the integration of these separate areas (academic computing, the library, administrative computing and telecommunications as well as media services) into the Office of Information Systems and Services, it became clear that the former training efforts of exposing people to as much as possible and hoping that they would use something was not going to be adequate to achieve the University’s goal. This was confirmed by a survey which was conducted of users to ascertain their perspective and provide information for the development of a new training program. The survey results are captured by the following comments:

- The courses are too advanced for me and I felt lost.
- Too much time was spent on basic things that I already knew.
- It was interesting, but I cannot see how I would use it.
- It worked in the lab, but I could not get it to work on the computer on my desk.
- Too much material was covered in too short a time.
- Not enough time for hands-on.
- I really do not have time to do anything with what I learned.
- I don’t go because I am so computer illiterate that I could not learn anything in the class setting.
None of the comments really surprised members of the ISS staff. The last comment reminded us that as a small campus people were used to more personalized attention: we agreed that we needed a new approach and that the new integrated organizational structure for ISS would serve as the means to define that approach and to actualize it. As an integrated department ISS was best positioned to provide leadership for a collaborative training effort since its responsibilities cut across the University: computer basics, phone/voice mail, applications software, HTML, and bibliographic instruction.

ISS put together a task force made up of faculty, staff and administrators to collaborate in planning a comprehensive and yet user specific training strategy. Members were chosen because they could network with other related committees on campus. For example, one of the members is active in the University’s Teaching and Learning Center for Faculty Development, another is a member of the University’s General Education Committee, another is on the steering committee for the University’s middle management organization, etc. The membership of the Task Force was as follows:

- CIO
- Director of User Services (ISS)
- Dean of the College of Arts and Sciences (Liaison with the Academic Council)
- Faculty (TLC)
- Faculty (General Ed. Committee)
- Faculty (Grants Office half-time)
- 2 administrative staff (middle manager)

The Task Force met in several brain storming sessions to develop a new approach to training that would address the concerns raised in the survey. Several recommendations came out of this process:

- The Task Force should function as the coordinating and evaluating body.

- Since ISS cuts across the institution in terms of its functions and the constituencies it serves, it should be the primary vehicle for delivering and/or managing the delivery of training for faculty and staff, and should team up with faculty for delivery to students.

- The Task Force should identify and recommend a list of basic computer competencies which would be required respectively of all faculty, staff and students.

- HR should work with the various managers within the University to review position descriptions and update those descriptions to include the requisite technical skills using the “basic competencies list as a starting point.

- Managers would use the revised position descriptions to evaluate an employees abilities and identify skills that were either weak or lacking and based on that assessment develop a plan to address those deficiencies for each staff person.
• A special handout with a list of courses from the course offerings would be developed for all new employees. New students would be expected to take an introductory workshop to the campus network during the first weeks of the semester.

• The resultant training program should be of a more personal nature and reflect the particular needs of CLU.

Basic Competencies

The Task Force recommended the following as basic competencies for faculty and staff. Greater priority was given to getting faculty up to speed in order to expedite the impact on the classroom. The Task Force set as a goal the training of 90% of the faculty in the basic competencies by the fall of 1996. These basic competencies were defined as follows:

• **E-mail** - communicate electronically on and off campus. Make new messages, reply to messages, forward messages, file messages, make address books, attach files to messages.

• **Operating Systems** - use the basic functions of file management and information sharing between applications. Back-up data, copy files, develop organized file storage system using folders/directories, ability to move information between applications using copy/cut and paste.

• **Internet** - know when and how to use the various tools for research and teaching. Use Netscape to access the University’s Home Page, search the WWW and Gopher (use search tools such as WebCrawler and Lycos), become familiar with WWW directories and browsing strategies (tools such as Yahoo, Whole Internet Guide, etc.) to identify electronic sources of information for research and teaching or for use in a particular administrative office.

The liaison from the Task Force with the General Education Committee of the faculty was charged with taking the basic competencies list to the General Education Committee which has been charged by the Academic Vice-President with developing a similar list for students as part of a revision to the University’s core curriculum. (As well as address more advanced skill levels.) The Core Revision Proposal is to go before the faculty in the spring semester 1996 for discussion and a vote.

Proposed Training Program for Faculty

The proposed training program for faculty has two parts:

1. A program to address teaching the basic competencies to faculty.

2. A program to address developing advanced skills and applications beyond the basics.
The group looked at the results of the survey evaluating the former program and the recommendation for a personalized approach and decided to try utilizing a mentor model as the programmatic approach for dealing with basic competencies. The model was tested on a select group of the faculty in the spring of 1995. Faculty who had shown themselves to be relatively technically sophisticated were polled and asked if they would be interested in mentoring two of their colleagues in a set of pre-defined basic technical competencies.

The time commitment and suggested format of the mentoring was as follows:

Minimally, an initial two hour meeting with two additional one hour meetings as follow-up about two weeks after the initial session. During the time between sessions, the mentor should make a concerted effort to keep in touch with his/her faculty mentorees, sending them e-mail regularly, responding to any questions, etc. During the sessions, but in particular, in the two follow-up 1 hour sessions, in addition to reviewing the basic competencies and answering questions, mentors spend some time talking with the faculty member about the ways he/she use technology and probe the potential ways the faculty member might incorporate the use of technology into his/her courses.

We ended up with 12 faculty who said they would be interested in serving as a mentor. To select the test group of mentorees the Task Force reviewed a list of full-time faculty and set the following criteria for asking someone to participate:

1. Prior expression of interest.
2. Has attended a workshop before, but expressed frustration, etc. over use of technology.
3. Knowledge of someone in the group of an interested potential user, but someone who was not proficient.

Twenty-six faculty were identified as potential mentorees. Each faculty member was personally contacted by the Director of ISS and asked if they would be interested in participating in the test of this new delivery system. Of the 26, 23 said yes and two more called to ask if they could be part of the initial group, so we started the initial program with 12 mentors (4 women and 8 men) and 25 mentorees (11 women and 14 men).

An initial survey was conducted of mentorees in the summer of 1995 to evaluate their initial response to the program and to provide us feedback on whether or not we should move to implement the program on a large scale in the fall of 1996. A more formal evaluation was also developed by two faculty which was designed to do more in-depth evaluation of both the mentors and the mentorees. This evaluation was conducted by two faculty members and one ISS staff member. Their findings are awaiting publication. The initial survey conducted by ISS in summer, 1995 had very positive results:

- A small number of faculty indicated that they had not had the time to follow through and meet with their mentor.
- One mentor admitted not having followed through with his assigned faculty.
- The response was resoundingly positive. All participants commented on their appreciation for the personalized one-on-one interaction which allowed them to ask
questions specific to their own needs.

- Mentorees also indicated that having the sessions in their own office on their own computer was very beneficial.

- Several mentorees stated that they appreciated the experience because now they had a colleague they could call on for additional advice and discussion about technology.

- Three mentors have even gone one step further to develop joint efforts to integrate technology into their teaching with their mentorees.

Did the faculty actually learn what we hoped they would? A difficult question since we were not about to put ourselves in the position of giving a test to faculty. We decided rather to evaluate our success based on the performance of these faculty in subsequent workshops requiring use of the basic competencies. The proof of their learning was evident as they participated in the second half of our training program which consists of a series of workshops focused on specific applications of technology to teaching. Of the original 25 mentorees, 13 took part in the summer, 1995 workshops. Workshop leaders were asked to pay particular attention to the performance of these faculty so that we could make some judgment regarding the success of the mentor program. The performance of the mentorees who took one or more workshops in late summer/early fall, indicated that our mentoring program was a great success. These faculty were able to move through the workshops with few problems and all are now using one or more new found techniques this semester.

Presently, twenty-five percent of the full-time faculty are being targeted for participation in the mentoring program each semester so that by the end of the 1995/96 academic year, 95% of all full-time faculty will have participated in the mentoring program.

Training for Integrating Technology into the Classroom

The possession of the Basic Competencies by faculty are considered the essential foundation in order to accomplish the goals of the University related to technology and instruction, and are prerequisites for taking the advanced workshops offered to faculty. To address the use of technology to enhance student/faculty interaction and to integrate technology into the teaching/learning environment, a series of workshops have been developed for faculty which focus specifically on the accomplishment of these goals. Our target goal is to have 95% of the faculty having successfully completed at least two of these workshops by the end of the intersession in January, 1997, by the fall of 1996 to have 60% of the faculty utilizing technology in some form in their classes, and increase that amount to 90% by the fall of 1997.

The faculty workshops teach the “how to” of a particular piece of software or tool, but also incorporate strategies for implementing their use within the instructional programs of the University. The workshops included:

**Enhancing the Presentation of Course Materials**

Participants should come with an initial idea for incorporating presentations (PowerPoint) into the teaching methodology of at least one specific course.
The workshop will cover PowerPoint’s basic commands and tools. Discussions of utilizing visual images to organize and present ideas will serve as a stimulus for each participant to work on the design of one or more instructional units for a particular course. Participants will explore models on the use of presentations software for students as a tool or posing a question, and exploring the issues and organizing the results into a presentation.

Participants will:

a. implement their initial idea for using presentations by developing a prototype for use in a course, and
b. master basic PowerPoint commands and tools.

**Dangling your Coursewares on the World Wide Web**

Participants will learn how to develop their own home pages for a particular course or part of a course. Discussions will include home pages as: tools for helping students to frame a research question and present the results; pathfinders to navigate the myriad of resources on the Internet to explore a research question; an alternative to research papers or publishing original work; and lecture and review tools.

Participants will:

a. identify one course for using home pages
b. develop a prototype home page for a course, and
c. master basic HTML commands

**Enhancing Student Interaction through Electronic Dialog**

A listprocessor has many potential educational uses for enhancing discussion and interaction in and between classes and different groups. It can even be a means for holding students accountable for course related discussions outside of the classroom as well as preparation for in-class activities.

This workshop will be comprised of two parts. The first half will cover the basic commands required to manage a listprocessor discussion list. The second part will consist of a discussion among the participants of the potential uses of listproc within their courses and will serve as the catalyst for each participant working on incorporating the use of a listproc discussion group in one or more courses to engage students actively in the exploration and organization of information as it relates to the content and/or assignments of that course.

Participants will:

a. master the basic listproc commands;
b. identify a course in which to use a discussion group, and
c. incorporate the use of a discussion group into the course syllabus.

**Results of New Program**
A survey of department chairs, conducted in early October, 1995, indicated that there were 31 faculty who had already integrated the use of technology into one or more of their courses for the fall, 1995 semester. Examples of what these faculty are doing include:

- use of PowerPoint for class presentations,
- use of Intel Proshare for tutorials between main campus and branch centers,
- use of listproc for on-line discussion groups,
- use of the home page to present an interactive course syllabus,
- and Internet resources cited on course bibliographies as well as requiring their use in literature reviews by students.

Student response to the results of the use of technology will be integrated into the standard course evaluations. The results of a random survey of students in late October, 1995 are best captured by the following comment provided by a student on that survey:

“How exciting! Thanks for bringing Cyberspace into the classroom and modeling for us how we can make use of it. Your use of CLUnet made this class come alive.”

**Administrative Staff Training Program**

**Basic Skills**

Because of the wide degree of skill level amongst staff relative to technology, much wider than the faculty, and because of the success of the faculty mentoring program, it was decided to utilize this approach with staff as well. However, we did not have enough staff to implement a mentor program across all departments. Hence, it was decided to take a slightly different approach from the faculty and cultivate one or more mentor/experts in each office. We are providing an intensive training for potential mentors during this fall semester. Our goal is to implement the mentoring program fully for staff during our intercession in January, 1996. Rather than ask for volunteers, each manager was asked to identify one or more staff (depending on the size of his/her department) who would serve as the mentor and become the resident expert for that office. As further inducement, staff who serve as mentors will be offered the ability to earn one additional floating holiday. In three of the larger offices we did not have enough individuals come forward so I went to the managers of those areas to discuss the situation. In two of the cases additional individuals were identified. In the third area, the manager felt that the one individual who had volunteered would be adequate. The purpose of the mentoring program will be to focus on the same three areas of basic competency as with the faculty. Netscape is included for staff because the University is moving in the direction of using its WWW Home Page as the gateway to information on and off-campus. Upon completion of the installation of the University’s new administrative system, Netscape will be utilized by staff, faculty and students to query the administrative information system for data. Since implementation of this interface is about a year off, a fourth item was added to the staff list of competencies:

- knowledge of constructing basic queries in the University’s new administrative information system.

**Advanced Skills**

The second tier of training for staff focuses on productivity tools that are available on the network. Inspired by success with faculty workshops which focused not only on the “how to,” but also included the application of the “how to” to particular situations, the courses for staff on
productivity tools employ examples from the CLU work place and invite attendees to think about how to use these tools to work smarter.

Under exploration via discussions currently at the President’s Cabinet, is how ISS can team up with the various departments to focus on the impact of technology on processes and the need for process re-engineering. The conversations are centered on how mere utilization of technology may require changes in these processes as well as discussing how changes might be necessary to get the full benefit from technology. These conversations are particularly critical in light of the University’s implementation of an entirely new administrative information system in all offices.

The ultimate success of our staff training efforts remains to be seen, but I am convinced that we can repeat our successes with the faculty in the staff training program because as collaboration brought success in our faculty efforts, similar collaboration will lead to success amongst the staff. If these efforts were only those of ISS or some other department I would be less hopeful.

**Conclusion**

Collaboration and commitment have worked because they emanated from the top. The new training efforts and successes are due in part to the fact that such plans were discussed at the level of the President’s cabinet which has helped insure sustained enthusiasm and support. Indeed the ISS team is not only surfing the net, but riding the crest of a most powerful wave, collaborative teaching and learning for more effective integration and use of technology. It continues to be an exhilarating experience, especially as our training programs continue to evolve and to weave their exponential effects.