POSSIBLE SCENARIOS FOR IT SUPPORT
2nd DRAFT!

The following scenarios represent four important and visible areas of major opportunity and impact of IT support, highlighted from the user point of view. It is envisioned that the bulk of these scenarios may be achievable in the 3-8 year timeframe. Progress towards these scenarios involves significant technology and non-technology infrastructure advances and investment, as well as resolution of various issues on who can access what information, when, how and under what conditions.

Scenario 1: Multimedia information aggregation & access in instruction

Summary

The instructor assembles presentation by compiling text, images, and data from instructor’s own personal files, from digital libraries, or from instructional modules assembled by others. In class, the instructor acquires/produces more content in real time in response to student questions, via online connections. Presentations are available to students concurrently in class or subsequently, via computer-based connections and via electronic whiteboard. Students utilize instructor-compiled and other online resources to do their course assignments.

Details

Classrooms are available with IT support so that the instructor may use a classroom PC to load lecture slides from the instructor CD, or connect instructor’s own PC to a UCLA server or anywhere else storing the lecture slides, and display the slides on a screen (via PC to screen equipment in the classroom), and to connect to the Internet and display it on the classroom large screen. Students are also able to connect to a server or to the classroom PC and download the lecture slides, from the classroom or remotely located, or subsequent to the class. Students may access the lecture information from their notebook PC’s in class, from their home desktops, or from pocket PC’s via wireless means.

An electronic white board is also available for the instructor as an alternative to the blackboard. Material written on the white board may be stored in the class PC for the instructor and downloaded by students into their computers. An OCR reader is available for the instructor to digitize white board material that is feasible to digitize.
The classroom is equipped with voice and video recording to record the lecture (and student questions) and store it in a server for subsequent use, as determined by the instructor. The video may be stored in a video server for subsequent viewing via video streaming in the Internet. Video viewing support allows users to selectively view any portion of any lecture.

The instructor controls who may download when what slides and text, whiteboard material, and audio and video material for which the instructor holds the copyrights or has permission from the copyright holder, designating the names, email addresses and other information of students enrolled in the class. The instructor is provided an up to date electronic report of what enrolled student is connected in the classroom and who is not is not in the classroom but is connected concurrently. Two specific examples:

1. The instructor has a new update to the class text chapter and accompanying slides, and is able to provide it to only enrolled students for downloading at the beginning of class; the instructor may post on the class website his/her book or other class notes for access by only class members or whoever the instructor designates.

2. The instructor has a quiz for the class and is able to provide it electronically to only those attending the class, along with a message of “missing the quiz” to those enrolled but not physically in the classroom.

Teaching Assistant (TA) lectures held in IT equipped classrooms may also benefit from the above support.

Arrangements may be made between the instructor author and the publisher of a book such that internet access and use of the book by readers may take place under an agreeable business model, in contrast to the traditional printed book model (involving a printed book, author royalties, publisher royalties, book price). Progress is expected in the availability and use of textbooks in the internet environment.

Instructors have IT and needed personnel infrastructure support (in many cases this is the TA) for developing the class website. Class web templates are available from a UCLA server for the instructor and the TA to easily fill in the types of information needed such as course outline, office hours, projects assignments, lecture slides, whiteboard material, and videos of class lectures that may be available.

Instructors and TAs may send email messages with any desired lecture attachments (text, slides, recordings, etc) to all or any selected students in class under various criteria.

Remote access to UCLA should be enabled with more than traditional PC modems. Faster means such as DSL should be facilitated for students, faculty and staff. Wireless connectivity should be also available under various arrangements.
Scenario 2: Integrating academic and administrative information in enrollment and grading

Summary

Course enrollment, grading and access to course and enrolled student data through time is one seamless environment for faculty, students and administration. They receive course enrollment data in a timely manner, integrate their assignments and grading information, and grades data become available to the Registrar directly. Various data may be compatibly downloaded and uploaded between the UCLA systems and the user PC environment, observing appropriate confidentiality guidelines. The academic timeline performance of a student is readily accessible for those authorized.

Details

Students can enroll in class and access their academic and administrative information resources from a single “place”, including class registration, grades, transcript, library records, web sites where they have posted their class projects, personal home page, etc. Upon enrollment or placement in the wait list in a class, students provide additional information per any class questionnaire defined by the instructor.

Instructors and TA’s have an up-to-date electronic roster of students enrolled including a link to further information such as their email addresses, student personal web site, year in school, advisor, major, GPA, etc. (issues of data access may need to be resolved), from the time they start enrolling.

Instructors may define for each class they teach the content of any questionnaire that each class student enrolled or in the wait list is to fill out after enrolling in the class.

A grading electronic spreadsheet or book is available to be tailored by each instructor to support the grading of each student. This grading sheet should be PC compatible (e.g., MS Excel compatible) so as to download and upload data as needed. The student also has access to his/her own grade performance via the internet. The class grade sheet and the individual class performance should be accessible for a period of X years.

The student transcript is electronically available to those authorized via the internet. A students have full access to their transcripts via the internet, and can request the Registrar to send electronic copy of their transcript. Instructors have access to their advisee academic transcripts as well as other information.

Data accessible in the UCLA system via the internet (class rosters, grade sheets, questionnaires, etc) may be downloaded to the PC environment by the instructor, and a student may download all personal data.
Faculty can integrate their course web pages and student pages with administrative information. They can view students’ contributions to course discussion lists and student projects posted online.

**Scenario 3: Information aggregation for recruiting students to UCLA**

**Summary**

Prospective students and their parents can more easily learn via the internet about the opportunities and benefits of a UCLA education, and about the application process, using multimedia IT support. Information available includes academic program descriptions; the full UCLA Catalog; admission procedures along with the web available application form; information sessions by UCLA recruiters; statistics and standards for undergraduate and graduate admission for the college and for individual schools and departments; financial aid statistics; graduation rates statistics; graduates’ job placement and new graduates’ salary statistics; on-campus housing information; library and instructional resources; student services; health services; intramural and varsity sports; recreation, arts and theater; and other aspects of student life.

**Details**

Prospects access statistics and other information of interest such as the following.

How many applied, were admitted, were placed on the wait list, and agreed to attend UCLA, including the detail per major or department, for both early admission and regular admission, including diversity student statistics.

For those graduating, what % graduated, what number and % went to work outside or continued to graduate school with what major. For example, for each of the biology majors, what % entered medical school and what % entered a top 10 medical school (per X ranking), and what % is in what other area of endeavor (for example, what % is continuing in this major in graduate programs at this institution).

What % of admitted students received what level of financial aid, with details per major field of interest. For graduate students, how many TA ships, RA ships and fellowships were awarded to incoming students. For various ranges of parents’ yearly income, how many students received what levels of financial aid (e.g., for parents earning $80K-$100K X students received a total of Y dollars in university grants).

Full information on each dormitory including the layout of each dormitory and multimedia tours of it; statistics of interest such as the number of men and women, the
distribution by major, by seniority, and by diversity group. Housing applications may be submitted via the web.

Students and parents access this information via the web from a “one stop shopping place,” with hot links to each department site with further details or pertinent information. In addition to all the academic program information. A given department may have in its web site more detail on its alumni statistics, alumni advisory board members that may be contacted, and highlights of outstanding alumni and alumni awards.

Multimedia visual tours are available via the Internet on the campus (academic units, sports units, housing units, etc), as well as on various departments for prospects depending on the major of interest. Some departments have such tours for laboratory facilities. The tours may be traditional videos and/or multimedia zoom in/out multimedia tours allowing one to “walk” through a location. Videos (via video streaming, not downloading) or at least voice recordings of open house sessions (including faculty, administration and students) are also available via the Internet, both for prospective students and for students accepting admission.

Faculty has access via the internet to each admitted student application record part that is in soft copy form, including admission application, admission test scores and ranking, transcript, student essay or statement of purpose, letters of recommendation, UCLA and department recommendation, financial aid arrangements, etc.

Note: students and parents are very interested on what happens with students after they graduate from the institution, so the above type of statistics are most pertinent although difficult to gather.

Additional data may be provided for prospective students and parents that may be of competitive advantage to UCLA.
Scenario 4: Aggregating information for research, teaching, and public service – health care

Summary

Faculty, staff, students, patients, and members of the public can obtain information on medical research and on health care at UCLA. A patient (current or prospective) can identify facilities, specialists, clinical trials, information resources, pertinent services, and research programs for specific diseases (e.g., stomach cancer), at a one-stop electronic information center. Links to reputable information sources also are provided from the UCLA site.

Detail

A scenario example is the following. A UCLA web site provides various information pertinent to the patient ailment interest (e.g. stomach cancer, brain aneurysm, heart condition, etc). Information includes UCLA specialists available at the time for such ailments, their biographical sketch and link to their personal home page, their appointment desk (avoiding calling by phone to make appointments) and alternate doctors appointment desks comparing availability and medical specialty; trials available at UCLA with a hot link to the web site with additional details such as trial description and results or hypothesis of trial, patient requirements for participation, number of patients applied/admitted, duration, etc; links to web sites of research projects at UCLA pertinent to the patient situation; and links to reputable non-UCLA web sites with pertinent information.

Note, this is not a scenario of free automated diagnosis of a patient condition, nor replacement to seeing a doctor, but rather of entry to a world of pertinent information organized to enhance patient understanding of UCLA’s help possibilities.

The patient may enter remotely via the internet information requested by UCLA medical staff for admission (if a new patient) or for subsequent visits (e.g., reason for visit, past history, medications taken, insurance company information).

A UCLA patient has internet access to his/her personal patient record kept at UCLA, and may download it to a PC, including all alphanumeric data from laboratory tests showing results, normal ranges and flags for out of normal results (e.g., higher than normal cholesterol count); images (x-rays, MRI, CT, etc); radiology and medical diagnosis; and doctor’s recommendations including medications and treatments with links to available details on each medication.

Implanted devices (non-invasive and invasive devices) on the patient may transmit on an on-going basis and on a wireless basis various medical information for action by the attending medical staff or doctor. Further details of a remote-sensing and telemedicine scenario may be envisioned.