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The electronic university of the future

by Donald G Perrin

Assignment of letter grades is not consistent with the philosophy of the University of the Future. Credit will be given when the student reaches the required level of performance.

In a traditional university courses are of finite size and only a set number of students can participate in a given semester. The University of the Future will develop its own evaluation instruments to facilitate classes of any size. The integrity of a course and its evaluation procedures must be maintained to protect the University of the Future, the university that supplies the course, and the student. It is important that whatever method of evaluation is used, it is consistent with the learning style of the student and the goals of the course.

PARALLELS BETWEEN PHYSICAL AND VIRTUAL UNIVERSITIES

A university is a community of people with diverse interests and goals. The common focus of learners is personal growth and job skills. Its resources include libraries, instructors, classrooms, laboratories, administrative offices and social/recreational facilities.

—Instruction. In the virtual university learning resources are replicated in electronic formats—the electronic library and the Internet, television, interactive video, desktop video, and multimedia instruction with live discussions via telephone or continuing dialog through computer forums and bulletin boards. Laboratories can be simulated or local community resources can be used.

—Administration. Administrative functions are accomplished online on a 24-hour basis, with human resources always available.

—Social/Recreational. These areas are least well served by a virtual university. For this reason traditional universities will usually be preferred by recent high school graduates.

—Control. In a virtual university, the learner makes the choices from a broad range of courses, institutions and professors. Courses are adapted to the schedule and learning style of the learner and customized for specific needs. courses can start and end at any time, and operate 24-hours. (Compare this with a traditional university where the institution retains control. The student has only a limited selection of courses and professors, schedules are inflexible, and rules are punitive for students who do not fit into the calendar and the rules prescribed by the institution.)

—Facilities. In a virtual university, funds for construction, operation and maintenance of classroom buildings can be diverted to produce and maintain courseware, networks and human services. Personal counseling, tutoring, mentoring and other services are available online by telephone or via other communication technologies. Such services would be staffed by professionals and volunteers on a 24-hour basis.

PART TWO

—Charter. To encourage experimentation with new university structures, the state of California has made provision for Charter Universities that are exempted from state accreditation guidelines for a period of five years. This should be sufficient time to establish and validate the systems of recruitment, instruction, evaluation, graduation and resource management to meet the requirements of the accrediting agencies. Continuous quality improvement based on surveys and student feedback will ensure efficient operation with high quality courses and supporting services.

THE ADMINISTRATIVE HUB

The hub of the university will be a powerful computer management system backed by human resource personnel. It will operate 168 hours per week to enable admission, advisement, registration, accounting, course selection, course delivery and record keeping from widely distributed sources.

Curriculum and courseware will be selected from leading institutions of higher edcuation worldwide based on the following criteria:

—If instructor taught, the instructor must be nationally acclaimed for his/her teaching ability—curriculum design, presentation, quality of interaction, audiovisual materials, handouts, relationships with students, and assessment tolls.

—If Media taught, the courseware must meet University of the Future technical and pedagogical standards, which reflect those of instructor taught courses. Courseware should be validated to ensure it achieves its stated objectives with target groups similar to students of the University of the Future. Courseware not yet validated will be so labeled and may be charged at a lower rate. Courses validated by the University of the Future will be given its Seal of Approval. Universities wishing to add this seal to promote the sale of their products will pay a charge for the right to use the seal. Courses will be modular and accurately described so that students can design custom courses to meet their specific needs. Interdisciplinary courses and programs, new academic disciplines and cutting edge technologies will be given high curriculum priority.

Deans for each discipline will explore the implications of current trends and innovations and develop a cadre of scholars with a future focus. For example, science will focus on the effects of weightlessness on human growth and development, design of closed ecosystems for space stations, new energy, sources, space exploration, space manufacturing and the population of space. Art will focus on future themes and styles, computer art, fractals, holography, etc. And communications will focus on architecture for future computers and super-computers, compression algorithms, object-oriented design and artificial intelligence.

PROGRAM DESIGN

The University of the Future will develop a catalog of established courses, course shell structures and resources that can be used by students to design an individual program of study. Students will be encouraged to design holistic programs to prepare them for their proposed on career.

Students will have the option to receive special training such as:

—Speed reading with increased comprehension for up to 20,000 words per minute;

—Visualization and image interpretation;

—Mind mapping, planning and memorization skills;

—Team planning and facilitation for design, production and evaluation; and

—Interpretation skills for non-verbal communication.

PROJECTED IMPLEMENTATION SCHEDULE

1995—Develop business plan, seek funding, set up prototype management hub

1996—Implement courses in the Silicon Valley region to test prototype system

1997—Expand program to state of California

1998—Expand program nationwide

1999—Expand program worldwide