2000

A Survey of Existing Online Graduate Information Systems Degree Programs

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ABSTRACT

There is an increasing awareness of online courses offered over the Internet. These courses span a variety of disciplines and are offered by multiple types of institutions. This research examines the current status of graduate online programs. Of particular interest are those graduate online courses that lead to graduate degrees in information systems and related disciplines.

INTRODUCTION

During the past decade, we have witnessed an increase in both the number and types of online course offerings by four-year colleges and universities in the United States and in other regions of the world. From 1995 to 1998, the number of course offerings in distance education at higher education institutions has doubled from approximately 26,000 to 52,000 and the percentage of higher education institutions offering distance education courses has increased by one-third during the same period (Phillip, 1999).

The prolific increase in online education can be linked to the advent of on-campus multimedia capabilities and to the proliferation of the Internet, both of which have resulted in the reengineering of numerous courses. "It is the possibility of completing degree and certificate programs solely through distance education that offers the potential for the most dramatic changes in access and opportunity" (Phillip, 1999). Students have 24 hours a day, 7 days per week access to online courses from virtually any location worldwide, allowing education to occur when and where it is wanted. Technology allowing anytime, anywhere educational programs is touted as the vehicle that allows just-in-time learning (Landeros & Bafna, 1994). An increase in the number of working graduate students demanding time and place efficiencies will also increase the demand for online courses with scheduling flexibility (Copeland & Golladay, 1996-1997; Phillips, 1999).

This paper focuses on the availability of graduate online degree programs currently offered by accredited four-year institutions in the United States. The paper is structured as follows: first, a short background is provided on the development of online degree courses and programs. Second, graduate online degree courses and graduate online degree programs are defined. Third, the methodology for searching for information systems (IS) graduate programs that meet the criteria and definition is outlined. A fourth section will be added to report and discuss our findings. This work is in progress and compliments an earlier investigation of undergraduate online degree programs.

BACKGROUND AND DEFINITIONS

Distance education and online education are terms that are often used interchangeably. Distance education courses imply that instruction may be accomplished through traditional paper-based mail without the use of online electronic media. Since this paper is focused on online programs, it will not consider paper-based offerings. Many courses that include Web-based supplements, such as online syllabi, course support software, informational databases, assignments, electronic bulletin boards, web boards, listservs, and chat rooms are often called online courses. These materials supplement traditional classroom instruction, not supplant it. Graduate courses using these techniques should not be considered online courses but should, instead, be regarded as traditional courses with online components.

A more structured definition for an online course that would eliminate courses containing only selected online components is (Reif & Kruck, 2000):

"An online course is defined as a course where students complete coursework at times and locations convenient to them according to a prescribed sequence and timetable, acquiring course materials and interacting with the professor and their peers via the Internet."

Email is often the primary communication vehicle for online courses and may be supplemented with web sites, electronic bulletin boards, web boards, listservs, and chat rooms.

GRADUATE ONLINE DEGREE PROGRAM DEFINITION

Using the proposed definition for an online course as a basis, it follows that: *A graduate online degree program is defined as an amalgamation of online graduate courses that leads to a masters degree.* Graduate degree programs that contain required on-campus courses should not be considered graduate online degree programs. Required attendance at a specified testing site for course examinations would not preclude an online degree program from being included in this definition. Note, too, that this definition does not require that all of the online courses that comprise a graduate online degree program originate from the same institution. It allows the degree-granting institution to apply any acceptable graduate online course toward the institution's graduate online degree program's requirements.

PROBLEM STATEMENT

An earlier analysis of online information systems-related undergraduate degree programs discovered only two institutions offering programs that met the definition of online programs (Reif & Kruck, 2000). While sharing preliminary results of previous research on undergraduate degree programs, the issue of examining online graduate degree programs surfaced. Given that online degree programs require that participants have a high degree of self-motivation, it was felt that this motivation might be linked to higher levels of maturity that comes with age. Graduate programs typically attract older students than undergraduate programs do. Since graduate program applicants must demonstrate prior success in academia through achievement of an undergraduate degree, it is reasonable to expect that there should be a larger number of online graduate degree programs available. Graduate students must balance their desire for education with the demands of full-time jobs and family commitments. This fuels the requirement for online graduate programs that offer flexible scheduling, allowing students to complete their work at times and at paces that vary from day to day or week to week.

This paper initiates the lengthy process of surveying purported providers of graduate IS degree programs to discern whether they meet the graduate online degree program definition as stated above. Subsequent goals of this research are to determine the growth, over time, of graduate online degree programs in information systems related disciplines and to develop a better understanding of the components and constituencies of these programs. Scholars have recognized that distance education is not universally applicable to all disciplines and subject areas (Besser & Bonn, 1996).

To limit/manage the scope of online degree programs, this study focuses on information systems programs only. This decision was driven by the assumption that information systems programs would be among the first to embrace and use the information systems related technologies that enable the development and delivery of online degree courses in an effort to create online degree programs. Furthermore, a reasonable assumption is that students with interest in information systems degree programs should be most interested and open to using technology to complete their coursework. The focus upon information systems related programs recognizes that information technology curricula meet the criteria outlined above, suggesting that these programs are best suited to courses where there are a shortage of instructors, and where students and faculty are already predisposed to working with technology to solve problems.

A further limitation imposed was that only United States-based college and university programs would be considered in the sample. This was done in recognition of the difficulties that would be encountered in surveying non-United States-based institutions. The homogeneity of the overall credit hours required and of the general categories of courses required for United States–based programs were expected to offer a more consistent basis for initially applying the online course and degree definitions used in this paper. We recognize that future research will require a more global perspective.

SUBJECT POOL

To determine which United States-based institutions claim to offer online graduate degree programs in information systems technology, several databases are being examined. An extensive search is being performed using techniques that would likely be utilized by prospective degree-seeking students. This involves searching both the Internet and online databases for appropriate online degree programs.

Keyword searches are being executed using Alta Vista, HotBot, and Lycos search engines. The search engine results are being supplemented with additional Internet sites focused solely on higher education. One such site, Petersons (www.petersons.com), has been recognized as the most comprehensive source for information about degree-granting institutions active in distance education (Golladay, Copeland & Wu, 1998). Using search engines and sites focused solely on education is expected to provide many duplicated "hits". These will be reconciled.

Potential schools will be subject to a further filtering process using the previously stated definition for graduate online degree programs. We expect that many of the search results will not meet the criteria for United States-based, college or university information

technology related online degree programs. Many search hits reference courses with only Web-based components (e.g. syllabus or assignments were online only). In addition, many "hits" may prove misleading because they include courses that are not part of an online degree program. As a final filtering process, potential college and university IS degree programs will be contacted individually to further ascertain whether they indeed meet the criteria contained in the graduate online degree program definition.

CONTRIBUTIONS

This study will add to the literature in several distinct ways. First, it will produce a comprehensive listing of graduate (IS) degrees available online. Second, it establishes a baseline upon which the growth of these programs can be measured. Finally, it will form a foundation for developing a better understanding of the components and constituencies of online graduate IS degree programs. This information may prove useful for accrediting bodies, such as the AACSB, as they develop accreditation standards for online graduate degree programs.

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