



Virtual Universities

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Abstract

This article presents information on virtual universities. Virtual universities, also known as online universities or distance education, evolved out of the history of distance education as new technologies became available (Moore, 2003). They have served to open up access to some form of higher education to students who would otherwise not have the opportunity, such as working adults who must balance the responsibilities of work and family (O'Donoghue, Singh, & Dorward, 2001; Peltier, Schibrowsky, & Drago, 2007). Larger, non-profit public institutions tend to be more heavily involved in providing education virtually (Allen & Seaman, 2006). At the same time, total virtual universities more often tend to be for-profit entities (Antonucci, 2001). While the demand for the online education that virtual universities provide is growing, questions still remain about its legitimacy.

Overview

Importance of Virtual Universities

Many of those in education generally support the notion that virtual universities provide educational opportunities to students who would otherwise not have them. For instance, O'Donoghue, Singh, and Dorward (2001) indicated that "access to the Internet allows for distance learning that may encourage people to return to education who would not otherwise due to work or other personal commitments" (p. 514). Likewise, others have said that online education particularly benefits nontraditional students who may have no other educational options (Peltier, Schibrowsky, & Drago, 2007). Overall, Allen and Seaman (2006) noted that "a critical question for those who support online education has been to determine whether online learning is merely a different way to serve the existing student base, or whether it provides opportunities for an entirely new group of students" (p. 10). The latest annual survey sponsored by the Sloan Consortium in fact found that the majority of chief academic officers (65 percent) agree that online education is critical to their institution's long-term strategy (Sloan Consortium, 2011, p. 4).

Virtual universities are also changing the face of distance education. Moore (2003) noted that "historically, distance education has been regarded as an unimportant and marginal activity by comparison with face-to-face, on-campus forms of teaching and learning" (p. 40). However, enthusiasm for distance education has grown rapidly with "the application of Internet-based information and communications technologies" (Moore, 2003, p. 40).

Historical Development of Virtual Universities

Virtual universities evolved out of the history of distance education as new technologies became available (Moore, 2003). According to Boettcher (1996), "distance learning in higher education evolved to provide access. It has provided access where it might not have been, due to constraints of geography, time, family, or money (para. 19). Distance education in the United States has its roots in the Chautauqua Correspondence College, which was founded in 1881, and the Extension Department at the University of Chicago, which initiated the first university-led distance education effort in 1892 (Moore, 2003). Initially courses were designed to be delivered to adult learners via correspondence through postal mail (Moore, 2003). While the University of Chicago, which was a private institution, set off the

university-led distance education effort, public land-grant universities, such as the Ohio State University and the University of Wisconsin, served to accelerate it (Moore, 2003). Another public land-grant institution, the State University of Iowa (now known as Iowa State University) became the first university to deliver educational programs over broadcast television in 1934 (Moore, 2003). Later, during the 1980s, the University of Wisconsin had the world's most advanced audioconferencing system (Moore, 2003). Finally, the land-grant institution first known as Pennsylvania State College and now known as the Pennsylvania State University was the first to offer a graduate degree in adult education online during the 1990s (Moore, 2003). Overall, by the end of the 1990s over 80 percent of public colleges and universities offered courses over the Internet (Moore, 2003).

Virtual university courses are designed to be delivered over the Internet (Moore, 2003). Both public and private institutions offer online courses (Moore, 2003). The University of Phoenix Online and Capella University are two of the more well-known private providers (Moore, 2003). Rickards (2000) defined the virtual university or virtual campus as "a set of technology enabled functions making possible interactions between the different groups in the university (student, teaching staff, management and support personnel) without the need to coincide in time or space" (p. 1).

Moore (2003) argued that over the course of its history distance education in the United States has not fundamentally changed. The technological mechanisms by which it is delivered may have changed but approaches to teaching and organizational structures have not (Moore, 2003). Over time, courses have been delivered first by mail via print and correspondence, then by broadcast and recorded audio and video, next by teleconferencing, and finally via the Internet (Moore, 2003). Yet, the basic approach to teaching has not changed and still involves

... a careful deconstruction of content and reassembly in a series of 'lessons' for delivery in text to learners who are challenged in their individual environments to interact with the content to process it into personal knowledge; and that this processing is assisted by an instructor through interaction with each learner in support of that person's independent study (Moore, 2003, p. 35).

About Virtual Universities

Types of Instruction

It has been stressed that "distance education requires, by definition, that communication between teacher and learner be mediated by technology" (Moore, 2003, p. 34). The Internet is the technological medium utilized by virtual universities and courses are delivered online. According to Epstein (2006), "technology allows schools to reach a broader student base and to offer their programs according to students' preferences and time constraints" (p. 37). Online instruction at virtual universities can specifically be delivered either synchronously or asynchronously (Epstein, 2006). In synchronous online instruction, students and their instructor attend class online at the same

time. Asynchronous online instruction is the opposite, and due to the fact that students and their instructor do not have to attend class online at the same time, it has been noted that asynchronous online instruction holds the additional promise that "more people might be able to receive their postsecondary degrees at a time when it might be otherwise impossible" (Epstein, 2006, p. 36). Regarding virtual university instructors, according to Allen and Seaman (2006), schools generally use the same mix of core and adjunct faculty to teach online courses as traditional (face-to-face) courses.

Total Virtual Universities

Total virtual universities differ in the extent to which they offer courses online. Rickards (2000) noted that total virtual universities, in which all services are completely delivered online, are the exception and that most institutions – both traditional and non-traditional – are using some combination of technological and conventional means (e.g., face-to-face instruction) to deliver courses. Online-only colleges or total virtual universities tend to be for-profit entities, whereas online segments of traditional colleges are not-for-profit (Antonucci, 2001).

Institutional size is apparently tied to which institutions have virtual segments and to what extent. For instance, according to Allen and Seaman (2006), "the larger the institution, the more likely it is to have developed online courses and online programs" (p. 7). As such, larger institutions, including doctoral/research and master's institutions, tend to enroll more online students. Yet, while the size of the online class at each of the institutions tends to be smaller, associates institutions have the largest *share* of online students because of the absolute number of such institutions enrolling students. Also, in general, small, private, four-year institutions are less likely than public institutions to enroll online learners (Allen & Seaman, 2006). Finally, "there is a very strong positive relationship between institutional size and online program offerings: the larger the institution, the more likely it is to have a fully online program, and the more likely it is to have some form of online offering" (p. 8). For example, two-thirds of the largest institutions have fully online programs (Allen & Seaman, 2006).

Virtual universities may also be part of an educational system. The Tennessee Board of Regents' Online Degree Program has been rated as one of top virtual university systems in the United States. Not only do all Tennessee Board of Regents (TBR) institutions, including six universities and thirteen community colleges, participate in the system, but they are also joined by twenty-six technology centers (Demoulin, 2005).

Characteristics of Virtual University Students

According to Moore (2003), "distance education is exquisitely suited to meet the needs of the adult in search of learning, as it delivers the means of organized formal study within the work or home environment" (p. 2). Distance learning students in fact tend to be mature adult learners, because these students generally have the characteristics that are needed to be a successful dis-

tance learner including high motivation, strict discipline, and the ability to work independently (Boettcher, 1996). These students choose to study online because it is a more efficient approach for them than studying in a traditional classroom (Lorenzetti, 2005b). Students who study virtually also often do so to "augment a career need or a desire to learn for other areas of life" (Lorenzetti, 2005b, p. 3).

One researcher found that online students tend to be on average three years older than traditional students (Lorenzetti, 2005a), although approximately 40 percent of online students are under the age of thirty and about 20 percent are younger than twenty-five" (Groux, 2012). In a 2006 study, most online students (80 percent) were undergraduates and over half of all online students largely studied at two-year (associates) institutions (Allen & Seaman, 2006). At the same time, Allen and Seaman (2006) noted that "the proportion of graduate-level students is slightly higher in online education relative to the overall higher education population" (p. 1). In 2011, sixty percent were employed full-time, and the majority lived within 100 miles of the college in which they enrolled in an online course (Kolowich, 2012). Finally, Groux (2012) and Kolowich (2012) note that 70 percent of students who take online course are women; 60 percent are white, about 20 percent are black, and approximately 8 percent identify themselves as Hispanic.

Current Issues

Growth in Virtual Universities

While it has had its ups and downs, according to Foster and Carnevale (2007) "the virtual campus is re-emerging" (para. 3). This resurgence in online education is being fueled by public universities, like the University of North Carolina and the University of Illinois, who are adopting a not-for-profit approach to their virtual divisions (Foster & Carnevale, 2007). A survey by the education consulting firm Eduventures found that the name recognition and geographic dominance of some not-for-profit institutions may actually give them an edge over for-profit institutions in the online education sector (Carnevale, 2007). For instance, according to Eduventures, despite the flexibility of online courses in choosing time and place of study, many students choose to enroll in online programs that are offered by institutions located within the same geographic areas in which they reside (cited in Carnevale, 2007; Kolowich, 2012). Thus, most online students still want to study near a campus and nonprofit institutions' histories and reputations give them an additional edge nationally (Carnevale, 2007).

Demand for online education was growing at a substantially higher rate than was overall enrollment in higher education, and although the rate is slowing slightly, it continues to outpace overall enrollment (Sloan Consortium, 2011, p. 4). For instance, the although the 10 percent growth rate for online enrollments during the fall of 2010 was the second lowest since 2002, it far exceeded the less than 1 percent growth in overall higher educa-

tion enrollment. Overall, there was a total enrollment of online students of over 19.5 million in the fall of 2010 (Sloan Consortium, 2011, p. 11).

Various major reasons or events have been identified to explain the onslaught of interest in distance education in general. One event has been the rise of technology and advances that have resulted in the convergence of communication and computing technologies (Boettcher, 1996; Rickards, 2000). As a result, "multiple, and occasionally seamless, communication links now exist between homes, offices, cars, schools and workplaces" (Boettcher, 1996, para. 2). Another major reason is the necessity of continuing education in today's world where workers must stay up-to-date on emerging skills and developments in their fields (Boettcher, 1996; Rickards, 2000). Likewise, a major change in people's lifestyles has been a growing focus on life-long learning, or the "emerging overlap of education, training, work and leisure activity" (O'Donoghue, Singh, & Dorward, 2001, p. 514). There is also greater demand for access to convenient and flexible education (Rickards, 2000). Finally, according to Boettcher (1996) "current models of higher education are very resource-intensive, in terms of people, space, content development, and time for learners" (para. 8). There is a belief, albeit perhaps unfounded, that the new technologies of distance learning may offer a solution to the emerging cost issue (Boettcher, 1996). Rickards (2000) notes that there is an increasing view of education as a private good. Overall, O'Donoghue, Singh, and Dorward (2001) noted that as people's lifestyles become more complex and busy the market for distance learning over the Internet may become broader.

Questions of Legitimacy

The legitimacy of online programs continues to be a major issue. Hitch (2000) referred to the "prejudices and tensions inherent in educating the adult" (p. 21). One such tension has dealt with whether or not virtual universities can be licensed and accredited (Hitch, 2000). Other concerns about quality surfaced as virtual universities came on the scene and included how effective advising and academic support services could be provided to students and whether education acquired through online means would match that provided via traditional means (Johnstone & Krauth, 1996). Antonucci (2001) argues that online institutions or virtual universities can offer college services just as easily over the Internet as traditional institutions do on their physical campuses. For example, libraries and databases can be delivered online (Antonucci, 2001). Also, the latest annual survey sponsored by the Sloan Consortium found that the majority of chief academic officers continue to rate online learning outcomes to be the same or better than those associated with traditional instruction (Sloan Consortium, 2011). This is especially true at the largest institutions (Allen & Seaman, 2006). Additionally, according to Peltier, Schibrowsky, and Drago (2007) various research studies support that online learning can be just as effective as traditional, face-to-face instruction. Yet, Schank (2002) argues that virtual university courses "are usually watered-down versions of everyday college courses" (p. 83). Meanwhile, Hitch

(2000) questioned "whether higher education can fairly evaluate a 21st century institution when using standards from earlier centuries that may be outdated by technology and do not mesh with the population that virtual universities serve" (p. 21).

Instructor Roles & Methods

One issue that seems to have received much attention in particular regarding virtual universities is the educational process, including methods of teaching and learning as well as the role of the instructor. In 2002, Schank remarked that "we should worry about what kind of education these Virtual Us are going to serve up" (Schank, 2002, p. 75). Regarding methods of teaching, O'Donoghue, Singh, and Dorward (2001) indicated that "there are strong arguments for and against the asynchronous methods of teaching that virtual universities invite" (p. 520). For instance, some argue that students' speaking skills will suffer under such methods of teaching while others counter that students who may be too intimidated to speak up in a traditional classroom may be more willing to engage online (Barnard, 1999; Westera, 1999 as cited in O'Donoghue, Singh, & Dorward, 2001).

Some have actually proposed that virtual universities can help promote a kind of new learning (Antonucci, 2001; Schank, 2002). One example of this kind of new learning involved the teaching of health care online via a virtual community in which students "learn by doing" (Antonucci, 2001, p. 35). This type of online collaborative learning and its associated success demonstrate that "the lack of a classroom won't matter" (p. 35). In the virtual education environment, some have also stressed that the role of a professor or lecturer shifts from that of a formal teacher to a facilitator or mentor, who guides students in their independent learning efforts (O'Donoghue, Singh, & Dorward, 2001). Overall, according to some, online education is "having a profound effect on the future of postsecondary education and is transforming the educational model from an instructor-driven to an interactive and community-driven educational environment in which all students share responsibility for learning outcomes" (Peltier, Schibrowsky, & Drago, 2007, p. 140).

A 2013 study found, however, that while 97 percent of community colleges offer online courses, only 3 percent of students attending those institutions are enrolled in entirely online degree programs (Fain, 2013). For the most part, students felt they learned better in face-to-face instructional settings, especially in science and foreign language classes.

Cost

Another issue circulating about virtual universities deals with the extent to which they help to reduce institutional costs. Rickards (2000) stressed that "while some governments and some university managements may still believe that online teaching can reduce institutional costs, the evidence is to the contrary" (p. 4). In testament to the costs associated with virtual education, several universities, such as New York University and Columbia, abandoned their online ventures when enrollments were not

sufficient to justify the millions of dollars they invested in them (Foster & Carnevale, 2007).

Terms & Concepts

Asynchronous Online Instruction: Students and their instructor do not have to attend class online at the same time.

Continuing Education: A type of education in which students have some previous educational training but continue their education in order to, for instance, stay up-to-date on emerging skills and developments in their fields (Boettcher, 1996; Rickards, 2000)

Distance Education: A type of education in which communication between teacher and learner is mediated by technology (Moore, 2003).

Lifelong Learning: Deals with the notion that while some learning occurs in independent, ordered fashion (e.g., formal schooling) other learning is ongoing and overlaps with various life activities from work to leisure activities (O'Donoghue, Singh, & Dorward, 2001).

Nontraditional Students: Nontraditional students exhibit one or more of the following characteristics: lack of a standard high school diploma; delayed college enrollment, part-time college enrollment, financial independence, and full-time employment; nontraditional students may also have dependents other than a spouse (e.g., children or relatives) and/or be single parents (Horn, 1996).

Synchronous Online Instruction: Students and their instructor attend class online at the same time.

Total Virtual Universities: Also known as online-only colleges, institutions in which all services are completely delivered online; tend to be for-profit entities (Antonucci, 2001; Rickards, 2000).

Virtual University: "A set of technology enabled functions making possible interactions between the different groups in the university (student, teaching staff, management and support personnel) without the need to coincide in time or space" (Rickards, 2000, p. 1).

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Suggested Reading

- Carr-Chellman, A. (2006). Desperate technologists: Critical issues in e-learning and implications for higher education.

Essay by Marlene Clapp, Ph.D.

Dr. Marlene Clapp has nine years of experience in the higher education field. She completed her undergraduate work at the College of William and Mary and also holds a Masters from Virginia Tech. She earned her Doctorate in higher education administration from Boston College in 2005 and has been working as a higher education researcher for the past several years.

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