

Digital University

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Abstract: A digital or virtual university is a university that provides online courses for distance students through the Internet and communication technologies. It is needed to provide online learning to those who have difficulty attending the traditional university. This paper provides a brief introduction to digital university.

Keywords: Digital University, Virtual University, Electronic University, Cyber University

I. INTRODUCTION

Universities are institutions of higher learning and research. They create the environment where students learn and become mature as they interact with their peers and professors. The traditional university uses face-to-face pedagogical means of information dissemination and development of knowledge in its students. It has several limitations such as restricted reach, need for physical contacts, and high cost of acquiring materials [1]. The Internet has offered a better means of reaching students. Digital university has some merits for students who want to learn without the limitation of time and space.

The digital university has been defined “as a set of key resources and tools appropriately organized to effectively support universities’ users” [2]. The digital or virtual university has no campus, physical offices or infrastructure. It only exists in cyberspace. It applies Internet and the world-wide-web as an instructional medium. It has the advantages of interactivity, adaptation, and integration. It is the university of the digital society that involves the mutual cooperation of computer scientists, educators, and innovators. Its objective is to provide courses suitable for teaching and learning via the web. Offering online courses is not new. University of Phoenix and DeVry University have been offering them for a long time. The relationship between electronic learning and virtual university is shown in Figure 1 [3].

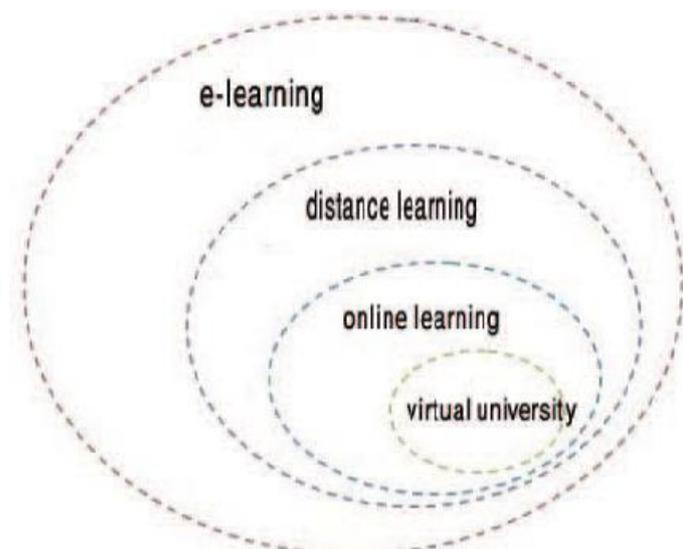


Figure 1. The relation between e-learning and virtual university [3].

Examples of virtual universities include the *Western Governors University* (<http://www.westgov.org>), the *Open University of the UK* (<http://www.open.ac.uk>),

African Virtual University (<http://www.avu.org/avuweb/en/>), and *Canadian Virtual University (CVU)* (<http://www.cvu-uvc.ca>). For example, CVU is a partnership of leading Canadian universities and it offers online and distance undergraduate courses.

II. COMPONENT AREAS

Although digital university may take many forms, it will not succeed except it provides the following services to distant students.

Administrative services: Under these services, students should have access to admissions, initial advising, registration, scholarship, ongoing advisement, degree audit, course schedule, course catalog, financial aid, payment, transcript, and award of certification [4].

Electronic lectures: Virtual or digital university consists of virtual lectures, virtual tutorials, and virtual exams. It provides learning and education in form of online courses through the Internet and multimedia technology. Electronic lectures used in distance education can be synchronous lectures or asynchronous lectures. They are used in presenting materials and can be transmitted through the Internet, cable or satellite. Web lecture is replacing classroom lecture as a popular means of presenting course material. Authors and editors must acquire new skills and change the way they present information.

Digital Library: Digital universities are basically extensions of digital libraries. Students need access to digital libraries to obtain information. The resources that the digital libraries should provide include e-books, e-courses, e-journals, databases, and interlibrary loan services. A digital library can be developed by a single digital university or collectively by a group of digital universities [5].

III. ADVANTAGES AND DISADVANTAGES

One advantage of virtual university is that it is flexible, convenient, and cost-effective for learners. It can support a huge number of students with a limited number of teachers. It enables global access and provides up-to-date resources. Students can have access to education at anytime, anywhere there is Internet connection. Physical attendance of teachers and students is not required [3]. Online learning is more student-centered than face-to-face teaching.

A disadvantage of virtual universities is the high cost of implementation. It requires costly technological infrastructure and faculty training. It also requires high digital literacy among the students. It tends to overload the student with information and does not take into account their learning ability. There is lack of immediate feedback from learners [6]. Privacy and security are important issues in virtual university. Sensitive information such as student identities and academic records should not be comprised.

CONCLUSION

Digital university uses multimedia and communication technologies to offer distance learning. It is the wave of the future in higher education. It has been applied in the field of surgery, whereby surgeons update their knowledge at their own pace, from a remote location [7]. Although the concepts of e-learning and digital university will change traditional education, digital university should not be perceived as a threat. As more educators have stronger ICT skills, online learning through digital university can be offered to a large number of people. The great success of virtual university will require the government, academics, computer scientists, and society working together.

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