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THE IMPACT OF INSTRUCTIONAL TECHNOLOGY ON BUSINESS EDUCATION IN THE UNITED STATES

Streszczenie

Internet jest bardzo ważnym czynnikiem w dzisiejszej edukacji. Służy jako źródło nowych praktyk, metod nauczania i uczenia się. Nauczanie on-line uważane jest za skuteczne interakcje podtrzymujące to nowe środowisko. Przeglądanie stron www łączy nowe sposoby nauczania i uczenia się oraz stawia coraz nowsze i wyższe wymagania studentom i instruktorom. Programy kursów on-line są dobrze zaprojektowane, posiadają dobrze napisane teksty i efektywne cele uczenia się. Istnieją jednak krytyczne uwagi, że kursy on-line zmniejszają kontakty personalne między uczniami a nauczycielem. W rzeczywistości programy uczenia się on-line stwarzają nowe możliwości tworzenia oddzielnego, skutecznego środowiska, które podnosi wartość uczenia się. Aby osiągnąć skuteczne wyniki uczenia się studenci musza mieć dostęp do najnowszych technologii i muszą wiedzieć jak je zastosować. Role nauczyciela sprowadza się do projektowania i wdrożenia procesu uczenia się oraz kontroli.

This paper is an iteration of the ideas of Professor Hossein Arsham, who taught the first course in the online MBA program at the University of Baltimore, the first such program accredited in the United States. Throughout the Twentieth Century, there have been many applications of new technology to business education, including motion picture films, projected images from photographic slides, radio, vinyl records, broadcast and closed-circuit television, audiotapes, videotapes, programmed learning machines, terminals connected to a mainframe computer, the desktop computer, and the Internet. Each time, the proponents of the new forms of instructional media have announced the transformation or even the end of the traditional university. Arsham (2004) points out that the impact on the bulk of teaching and learning has actually been minimal. He claims that

"Developments in paper/printing technologies have had far more influence, with the consequence that face-to-face discussion and paper resources still dominate public education. Audio-visual media have been treated more as an icing-on-the-cake than as something at the very heart of learning -- and likewise their long-suffering support services (though the new media, particularly video, have fared somewhat better in the development of corporate training programs)." In fact, there is debate in the instructional design literature about whether there are any unique attributes of media that can promote improved learning [see, e.g., Kozma, R. B. (1994). Will media influence learning? Reframing the debate. *Educational Technology Research and Development*, 42(2), 7-19].

The importance of Internet in education, particularly the World Wide Web, is a well-recognized fact. A wealth of resources and techniques serve as a source both for exciting examples of new teaching practices, as well as easily accessible methods for incorporation into various forms of teaching and learning. Internet technology allows teachers and students to try their ideas as soon as they come up with them.

Arsham (2004) reports that, "Generally, students appreciate the convenience, choice, and flexibility that an online courses offers. Instructional designers value the standardized framework and flexibility. Many instructors believe that an online course is convenient; they applaud the ease of record keeping and the reduced travel. Administrators like the idea of automated, consistent assessment information and the reduced costs that it can bring to an education institution."

On the downside, employers are likely to be cautious, if not skeptical, about hiring the graduate of an online business degree program. The belief is that an online degree is an interesting exercise, but it is not going to be as rewarding or valuable as a full-time traditional degree. This is partly, because most employers have traditional degrees and may be reluctant to hire someone with a credential not yet established.

According to Ashram (2004), the single biggest advantage in online learning programs is the interactivity they offer. Good interactivity is based on the mainstreaming of instructors with their specialized background, getting into more generalized leadership roles. There they can assure the creative collaboration and orchestration of online teaching/learning. A good Web-based design might not be in content design, but in bringing design into mentoring and the leadership.

Web-based learning can be a flexible and cost-effective alternative to classroom learning, but it can also be a huge waste of time and money if not implemented correctly. One of the biggest issues facing universities getting

into online learning is interactivity, both in its level and mode. How can the instructor make Web-based teaching more interactive? How can the instructor create a virtual classroom environment that maximizes participation? Just what constitutes 'interactivity' is not clear for some instructors. To some, it means enabling learners and instructors to share ideas in a virtual chat room; to others, merely posting a question on a bulletin board qualifies as interactivity. Despite the popular conception of the Internet as our most interactive medium, on the great majority of Web-based courses the interaction all goes in one direction—from instructor to student.

As the cost of technology decreases, many universities are finding ways to bring the benefits of the classroom into a distance-learning setting. However, distance teaching has been described as an industrialized form of education, characterized by systemization of process, division of labor, and mass production. The new information and communication technologies can facilitate this development, but only if policy makers are sensitive to the opportunities, especially at an international level. Web-based teaching and learning call for a serious reconsideration of the effectiveness (especially in light of increased demand for education and the opportunities for increased student motivation by new technologies) if integrated with knowledge-based design sites.

Ashram (2004) points out that an interface design encompasses four distinct, but related constructs--accessibility, usability, visualization, and functionality.

The operational infrastructure that creates a more effective, efficient and accessible learning environment is critical to Web-based learning/teaching success. But too often, this element is overlooked or seen as incidental to the design and quality of the learning materials themselves. These are the key success factors in teaching/learning which is oriented towards the students, who will become independent self-learners using the media and the support services. The advantages of online learning must outweigh the disadvantages for both the learner and the teacher to make the conversion process cost-effective. Nowadays, content on the Web seems to be inexpensive. But knowledge is nearly never inexpensive. The importance of content will increase to become a critical issue for the Web-based teaching/learning.

Online learning communities are considered to be new learning environments and an effective interaction is a fundamental factor that sustains this community. The coming of the Web, coupled with a new way

of teaching/learning, places new and different demands on students and instructors. Good online degree programs courses are well designed, have well written text, and effective learning objects. However, all these alone do not offer guidance and personal engagement. The virtual presence of faculty facilitators is needed to add a human touch to e-learning.

It is a common criticism that delivering courses online diminishes the personal connection between students and teacher. On the contrary, online learning programs present new possibilities for creating an individualized, highly effective environment that enhances and personalizes the learning experience.

But can educational institutions make a profit from their online programs? People are still reluctant to pay for online content and generally Web surfers do not see why anyone would pay. Other issues related to students include their psychological reactions to the new way of learning. Some may have a fear of technology. Others may have a low level of computer skills, though this is changing as more universities are training students more thoroughly. Some students may struggle with independent learning and feel insecure with an invisible teacher.

Online teaching/learning activities are not fixed in time or space. Many students find the flexibility of online learning a practical alternative to sitting in a campus classroom at specific times. Students can interact with the instructor and their classmates at any time from anywhere to seek clarification for issues they encounter in their homework assignment, to discuss topics in the course content, or to initiate new discussions on related topics. A successful online discussion has the same synergistic effect as group or in-class discussion, in which students build on one another's perspectives to gain a deeper understanding of the materials.
Change may not be easy, but it is necessary, inevitable, and often beneficial. Whether the students succeed or fail depends in part upon how well the educational institution uses its intellectual capital.

Rapid advances in information technology and easy access to the Internet are reshaping educational institutions by providing new learning environments and new ways to teach. At its worst, Web-based learning is a poor substitute for the classroom experience. But at its best, the unique attributes of online courses enable learning modes that are not possible in a face-to-face situation. To achieve the best possible effective learning environment, students must have access to the technology and the needed training in how to use it effectively. The role of the instructor is to be an expert in the learning process design, control, and implementation process.

The availability of the instructor to serve each individual student as a motivator, a mentor, and a caring communicator is the key to success. Technology on its own does not improve learning/teaching.

Web-based course delivery is the beginning of a new wave of technology development in higher education. Freeing student work from paper and making it organized and transportable opens enormous possibilities for re-thinking the curriculum, the evaluation of faculty, assessment of programs, and how accreditation works. The supporting evidence of its effectiveness might be the biggest challenge for instructional technology innovation. If used effectively, online learning has a greater potential to alter higher education at its very core than any other technology application we have known thus far.

What is becoming clear is that we are experiencing the same psychological response to today's new media from some old-time educators. They have spent a tremendous amount of time and energy in face-to-face teaching by using the old rules. Consequently, they are often resistant to change and less likely to look for creative, innovative approaches to new opportunities. They must be encouraged to adapt their teaching style to the current generation of students. The technology can be expensive and confusing, and designing of these courses that fit digital media can be challenging. However, digital libraries are the most important and influential for educational institutions because of their versatility, accessibility, and economy.

Convenient, flexible, and cost-effective, online professional development is helping instructors meet those changing expectations. Most instructors turn to online training to learn about technology and how to integrate it into the curriculum, but even more instructors are going online to learn the needed new teaching strategies.

Internet technology allows faculty members to distribute material without having to photocopy and distribute papers to students, and means that students do not have to go to a professor's office to look up grades that were posted on the door, or to call classmates to ask about the next reading assignment. Such features simplify the administrative tasks of teaching and learning. At many colleges, not all faculty members use Internet technology; however, its usefulness depends largely on how much effort is put into installing helpful features.

Facilitating creative dialogues between the instructor and students is the Internet's greatest contribution to enhancing education; much more

important than just putting lecture notes online. Most face-to-face courses involve a low-level of collaboration among students and instructors. A good teacher in the classroom can be less structured in presenting a lesson, since he or she is able to evaluate the students' reaction and adjust the teaching process accordingly --- something that textbooks cannot do. Feedback mechanisms do exist in Web learning, but are currently quite primitive in comparison to the face-to-face mode of teaching. The current Web-based courses also force decisions; users must interact in order for the narrative to progress because nothing new arrives until the user clicks another link. A "good' Web-based course environment is where the learner can think and experience a sequential flow of learning allowing "teach-yourself" by way of thinking for yourself. Subsequently, it must allow the learners interacting freely with the instructor whenever they need to.

Online delivery promises a new access route for millions of qualified, motivated students. The development of Web-based courses is a revolution in teaching and learning. At the heart of this revolution is a completely new pedagogy, for which most teachers are not trained, and which, for the most part, their administrators do not understand. What is currently happening is that too many untrained teachers believe that all they need do to be part of this revolution is to convert existing courses to Web-page format and be prepared to answer e-mail messages.

A strong sense of community should not be limited to the face-to-face teaching/learning. The online courses must build and sustain a sense of growing community at levels that are comparable to the traditional classroom. The main challenge is how to design and conduct online courses effectively that facilitate dialogue and decrease psychological distance, thereby increasing a sense of

Online community is one of the tools for a collaborated learning environment. Web-based collaboration has the potential to enhance the learning process. Educators who value collaboration and implement collaborative activities are more likely to engage in student-centered practice. Constructivist learning, a revised and updated form of discovery learning, is also a student-centered learning approach that is based on cognitive psychology. In this active learning environment, students encounter thinking-for-themselves that enable them to construct personal knowledge through problem-solving and experimentation. Constructivist principles work particularly well on Web-based teaching/learning setting.

A Web-based learning class is a more effective learning experience, since the learner participates in the learning process and receives individual attention, even when the instructor and the learner are at different locations. This participation in learning is by itself a positive learning experience. The Web-based learning atmosphere allows more effective interaction between the students and instructor.

The major impact of the Internet is that the traditional teacher and student roles change significantly. Students assume increasing responsibility for their learning while teachers become resources, facilitators, and evaluators, who guide students in their problem-solving efforts.

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