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Implementation of Digital Pedagogy in E-Learning as a Strategic Information System of Learning in University

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Abstract

Strategic information systems is needed by each institution as a tool to winning the competition. The main services provided by universities to students is academic services. One form of strategic information systems at higher education institutions is e-learning. E-learning is a system capable of providing academic services to students. E-learning optimization function in providing academic services to students is needed.This study will try to assess a problem: how to optimize the function of e-learning by applying digital pedagogy and methods of effective learning in the form of e-learning. There are many methods that have been developed but these methods can only be practiced in the classroom should bring teachers and students in the learning process so that the outcome can be maximized. E-learning is designed to help teachers develop the skills, knowledge and capabilities needed to facilitate a blend of face-to-face and online learning experiences that engages the digital generation: today's connected students. The expected outcome of this research is a strategic information system for internet-based learning system that is able to meet the needs of teachers in implementing digital learning pedagogic model of effective and efficient which can be accessed widely by the students.

Keywords: digital pedagogy, e-learning, strategic information system

Background

Heightened competition among universities in recruiting as many new students and provide academic and student services that bring maximum business strategy to survive in the competition. Currently, the application of information and communication technologies required in the business world as a tool in an attempt to win the competition. Almost all university applying information technology in its operations. The use of information technology can affect to the organization in terms of effectiveness, efficiency, and innovation with the removal, Automator, increased business prospects and opportunities.The implementation of information technology in education is implementing academic information system, e-learning, e-library, online examination system, online enrollment system and etc.All systems can be combined into an integrated system in the form of a strategic information system.

Strategic information system is an information system that supports the strategy of competition which gives the company a competitive advantage through internal efficiency and comparative efficiency that help companies deliver performance gains significantly and improve long-term performance. Alignment between the business realm with the realm of information technology becomes the key success factors for maximizing the value of profits. Development and implementation of information technology strategy requires the selection of appropriate identification, evaluation, compliance with the use of different technologies.

One form of strategic information is an e-learning system. E-learning is variously defined as a type of education where the medium of instruction is computer technology ordelivery of learning, training or educational programmes by electronic.

Digital Pedagogy is defied as the convergence of technical skills, pedagogical practices and understanding of curriculum design appropriate for digital

learners. Digital Pedagogy used effectively supports, enhances, enables and transforms teaching and learning to provide rich, diverse and flxible learning opportunities for a digital generation. It provides the basis for engaging students in actively constructing and applying rich learning in purposeful and meaningful ways. Digital Pedagogy enhances opportunities for authentic, contextualised assessment that supports learning in a digital context.The Digital Pedagogy incorporates contemporary teaching and learning strategies. It features personalised approaches, intellectual rigour and engagement, connectedness to global contexts, supportive and collaborative classroom environments and a clear alignment of curriculum, assessment and reporting toimprove outcomes for students. The Digital Pedagogy program cannot be viewed separately from the e-learning Spaces or Digital Content programs as teachers need to understand the ways in which students will work and learn in a digital and connected environment.

The problem in this research is how to optimize the function of e-learning by applying digital pedagogy and methods of effective learning in the form of e-learning. There are many methods that have been developed but these methods can only be practiced in the classroom should bring teachers and students in the learning process so that the outcome can be maximized. E-learning is designed to help teachers develop the skills, knowledge and capabilities needed to facilitate a blend of face-to-face and online learning experiences that engages the digital generation: today's connected students.

Method

The research methodology that will use largely the study of literature and an empirical approach. Literature study conducted by reviewing the results of research related to the research problem and an empirical approach carried out by examining the extent of utilization of information systems are applied by some university and reviewing the application of digital pedagogy method able to make the learning process more effective and efficient.

Discussion and Result

As a first step in this research plan, I will try to find an answer to the question: :

a. How is the implementation of e-learning is now able to support the learning process effective and efficient.
b. How can the impact of the implementation of strategic information systems in the learning that can improve performance and maximize the university performance and the number of applicants at the university.
c. What approach and framework that is widely used in developing digital pedagogic learning methods.

Result :

1. Data collection of the results result from international journals that discusses about application of digital pedagogy, startegic infomration system and e-learning at the university. The result from this phase is data from research studies.
2. Analyzing data from studies journal. The result from this phase is data that has been analyzed and it will be used to create e-learning system.

3. Designing e-learning appropriate with learning model of pedagogy. The results of this phase is draft form of data flow diagrams, design input and output system.
4. Writing for source code program in accordance to the design diagram that has been made. The results of this phase is e learning prototype.
5. esearchers will implement the research results at the one of the universities in Indonesia.
6. Researchers will test the system for one year.
7. Researchers will analyze the utilization and suitability of the system with the original purpose of the research.
8. The result from this phase is the analysis of utilization from the application of digital pedagogy learning system using e-learning.

Conclusion

The expected outcome of this research is a strategic information system for internet-based learning system that is able to meet the needs of teachers in implementing digital learning pedagogic model effective and efficient which can be accessed widely by the students.

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