

## UTILIZATION INTERNET TECHNOLOGY AS A MEDIA IN THE DIGITAL LEARNING PROCESS

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**Abstract:** In the digital era or the information age, science and technology are currently developing rapidly. This development has the impact of the increasingly open and spread of information and knowledge to and from around the world across the boundaries of distance, place, space and time. The reality is that human life in this digital era will always be related to technology. Technology has influenced and changed people in their daily lives, so that if they are still not technologically illiterate, it will be too late in mastering information, and will also be left behind to obtain various advanced opportunities. Education has also experienced very rapid development, including digital learning. By utilizing the development of information and communication technology, education can reach all levels of society. Education is not antipathy or allergic to the development of science and technology, but instead becomes a subject or a pioneer in its development. People with an interest in education are required to have an understanding of technology that suits their needs or literacy technology which is also called literacy technology, because it will play a role in present and future life. As a result, in the world of education at present and in the future there are several tendencies among other learning systems that have developed to provide education. Information and communication as part of technology is also developing very rapidly, affecting life and giving changes to the way of life and daily human activities, including in the world of education.

**Keywords:** Digital Learning; Learning Media; Internet Technology.

### A. INTRODUCTION

One of the priorities for improvement in education is related to the quality of education, particularly the quality of learning. From the various conditions and potentials that exist, the effort that can be made to improve the quality is to develop learner-oriented learning. Learner-oriented learning can be done by building a learning system that allows learners to have the ability to learn more interesting, interactive, and varied. Learners must be able to have competencies that are useful for their future. Along with the development of technology and its supporting infrastructure, efforts to improve the quality of learning can be made through the use of this technology in a system known as digital learning. Digital learning is a system that can facilitate.

### B. MATERIAL & METHODS

#### 1. Learning Media

Based on the Big Indonesian Dictionary online (KBBI online), the word media means tool; intermediary; liaison; or that lies between two parties. The word media itself comes from the Latin word medium, which literally means "intermediary" or "introduction" (Miarso, 1986). Meanwhile, according to the Education Association, the media are objects that are manipulated, seen, heard, read or discussed along with instruments that are properly used in teaching and learning activities,

which can affect the effectiveness of instructional programs (Sabri, 2005). A similar opinion was conveyed by Asnawir and Basyiruddin Usman (2002) that media is something that transmits messages and can stimulate the thoughts, feelings, and willingness of the audience (students) so that it can encourage the learning learners to learn more broadly, and in variety. Through the facilities provided by this system, learners can learn anytime and anywhere without being limited by distance, space and time. Digital learning requires learners and teachers to communicate interactively by utilizing information and communication technology, such as computer media with the internet process in themselves. It can be understood that the media is a tool that can be used as a channel for messages to achieve learning objectives. While the definition of learning media, Zakiah Daradjat (1995) stated that learning media is an object that can be sensed, especially sight and hearing, both inside and outside the classroom, which is used as a connecting aid (communication media) in the process of teaching and learning interactions to improve effectiveness of student learning outcomes. More specifically, the notion of media in the teaching and learning process tends to be defined as graphic, photographic, or electronic tools for capturing, processing, and reconstructing visual or verbal information (Arsyad, 2003). Steffi Adam and Muhammad Taufik Syastra argue that learning media is anything both physical and technical in the learning process that can help teachers to make it easier to convey subject matter to students so that it makes it easier to achieve the learning objectives that have been formulated.

Thus, learning media serves to enhance children's understanding of learning materials because the success of learning is largely determined by two main factors, namely methods and media. These two components are interrelated and cannot be separated. Media is not just a tool or material, but other things that enable children to acquire new knowledge. This is in accordance with Gerlach's statement which states that in general the media includes people, materials, equipment, or activities that create enabling conditions in the interaction process. Teachers must have sufficient knowledge and understanding of teaching media. One of the efforts of a teacher to convey information is the use of appropriate learning media in conveying messages in the teaching and learning process.

The very rapid development of technology in the current digital era has an impact on the development of the education system. This situation will encourage the advancement of learning media that uses digital media. Along with advances in technology, the development of learning media is so fast, where each existing media has its own characteristics and abilities. General characteristics of learning media according to Oemar Hamalik (1994), include:

- a) Learning media is identical to the definition of demonstration which comes from the word "raga", meaning an object that can be felt, seen and heard and which can be observed through the five senses.
- b) The main stress lies in objects or things that can be seen and heard.
- c) Learning media is used in the context of the relationship (communication) in teaching between teachers and students.
- d) Learning media is a kind of teaching and learning aid, both inside and outside the classroom.
- e) Learning media is an "intermediary" (medium, media) and is used in the context of learning.
- f) Learning media contains aspects, as a tool and as a technique that is closely related to the learning method.

## **2. Internet Technology**

Technology in our understanding so far has often been identified as a tool. By looking at technology as a tool (machine), the concentration of human resource development (Human Resources) with a technological and industrial perspective is then overemphasized in engineering

fields. Meanwhile, if the technology is no longer defined as merely a cumulative stock of tools, machines and various other artifacts (tehnici) from modern civilization, it can also be interpreted as a certain way of knowing and doing something. Thus, technology is more than just applied knowledge or engineering as in traditional academic world understanding, but can be seen as a universalistic approach to problem solving (tehnique) (Latif, 1996).

Talking about technology seems inseparable from science, because in essence technology is the application of organized science or other knowledge to practical tasks (Sadiman, 2000). So it can be understood that technology is the embodiment of science. In other words, if science speaks in a theoretical context, then technology has done its practical level (Hill, 1993). Internet stands for interconnected network because of its function that connects networks of computer networks in the world (Yuhelizar, 2008). According to Syamsul Hadi (2008), the internet stands for interconnection networking. The Internet is a computer network that is connected to the rest of the world without knowing any legal and cultural territorial boundaries. Internet is likened to a spider web (the web) which consists of dots (nodes) that are connected to one another. According to Ricky Brilianto (2007), he mentioned that the internet can be used to find the information needed, such as information on schools, scholarships, business, government, the latest news, the latest movies, and games. Not only that, many other things can be done via the internet. Even shopping can be done via the internet. The important thing is that the internet offers itself as a source of information, communication tools, and entertainment for its users.

From the development of internet technology provides opportunities, including: (1) increasing access to information, (2) collecting, analyzing, and organizing information, (3) communicating ideas and information, (4) planning and organizing activities, (5) collaborating with other people, (6) solving various problems, and (7) cultivating the development of cultural understanding.

In this regard, the function of the internet is as a learning medium. According to Dal Pian and Dal Silveira, quoted by Munir, the existence of internet technology can help (1) generate or develop new values, (2) reach a large number of learners, and (3) empowering individuals and social groups. (Munir, 2009)

### **3. Digital Learning**

Digital learning is a system that can facilitate learners to learn more broadly, and in variety. Through the facilities provided by this system, learners can learn anytime and anywhere without being limited by distance, space and time. Digital learning applies a web-based or digital learning system. The definition of digital learning includes aspects of hardware (infrastructure) in the form of a set of computers that are interconnected with each other and have the ability to transmit data, whether in the form of text, messages, graphics, video or audio. With this ability, digital learning can be interpreted as a computer network that is connected to other computer networks throughout the world. (Kitao, 1998)

Digital learning begins with good planning, then how the learning material is delivered to learners who must refer to that planning. The scope of competence for a teacher in digital learning includes planning and organizing learning, both verbal and non-verbal presentation skills, teamwork, questioning strategy skills, expertise in mastery of learning materials, involving learners in learning and coordinating learning activities, knowledge of learning theory, knowledge of digital learning, knowledge of learning planning, and mastery of learning media (Crys, 1997).

### C. RESULT & DISCUSSION

Through the use of the internet, a person can teach himself so that he can acquire new values that are developed within him or to strengthen the various knowledge he has previously had. These values are also related to the development of international knowledge, so that the insights obtained will also relate to global developments. The internet is a tool or means of learning that is powerful because of its ability or potential that enables the development of a global society and learners. The knowledge transfer process is carried out through learning activities via the internet. This will be new in him, or solidify the various knowledge he has previously. The existence of the internet is a tool or means of learning that is powerful because of its ability or potential that allows the development of global society and learners. As for digital learning, it aims to build more communication on technological developments and means of global knowledge, meaning that the implementation of learning is carried out online with website development.

The introduction of an innovation program, however good it may be, will experience failure if it is not preceded by adequate socialization to those who will use or utilize it. With no or minimal socialization carried out, implementers or users who will take advantage of the innovation program will likely feel that they do not know what the essence of the program is being introduced to them. The internet is a media, tool, or means of learning that is powerful because of its ability or potential that enables the development of society as global learning participants.

Internet technology continues to develop and has entered various aspects of human daily life. Starting from the simplest form of internet use, for example the use of e-mail for communication purposes, extracting various information needed, to relatively complex ones, such as designing and developing homepages or using the internet for various other purposes. The internet is generally widely used as a medium of communication, however, the next development is that the internet also has the potential to be used for educational and learning purposes. Various initiatives, either individually or through collaboration, learning through internet use have been initiated by educational institutions that have the necessary equipment and supporting facilities, both in the form of hardware and software.

Based on the experience of various educational institutions in carrying out learning activities through the use of computer technology with the internet, there are several stages of activities that need to be considered, namely socialization, preparing human resources, preparing the necessary infrastructure, collaborating with various relevant institutions, then gradually making use of it. the internet for learning. Socialization and introduction of computer and internet technology can be carried out at least starting from educational institutions that already have computer facilities in big cities to educational institutions at the district or city level where internet connection facilities are available. Socialization to the educational institution level can of course be carried out by the related official officials, institutions that provide computer courses, educational and training institutions in the use of information and communication technology for education and learning. Internal socialization regarding the use of computer or internet technology for learning in educational institutions and parents of learners also needs to be done so that learning activities can be perpetuated through the use of the internet. Various obstacles or obstacles that may be faced by learners need to be anticipated by educational institutions.

There are several requirements for learners who participate in learning programs via the internet, namely that learners must: (1) be highly motivated to succeed in learning independently, (2) be diligent or tenacious in their learning activities because learning success is entirely dependent on the learner himself, (3) enjoy learning, doing studies, reading and being independent, and (4) being able to learn flexibly. In connection with learning through the use of the internet, in the digital learning process several benefits have been identified that can be obtained, including (1)

increasing the learning competence of learners, (2) increasing teaching skills and experience in the procurement of learning materials, (3) overcoming limitations problems power, and (4) improve work efficiency. In addition to the benefits of learning programs via the internet as suggested by Brown (2000). Of course there are other benefits, namely the flexibility of learning activities, both in terms of learner interaction with learning material, as well as interaction between learners and teachers, as well as interactions between fellow learners to discuss learning material (Siahaan, 2002).

Meanwhile, Bates identifies 4 advantages or benefits of digital learning activities via the internet, namely: (1) it can increase the level of learning interaction between learners and teachers (enhance interactivity), (2) allow learning interactions to occur from anywhere and at any time (time and place). flexibility), (3) reach learners in a broad range (potential to reach a global audience), (4) facilitate the improvement and storage of learning materials (easy updating of content as well as archivable capabilities).

Furthermore, in planning the use of the internet for learning, it must first be determined what is the function of using the internet itself for learning activities. There are three functions of the internet (as a medium) in learning activities, namely (1) complement (complement), (2) supplement (addition), or (3) substitution (substitute) for learning in educational institutions, at the planning stage of learning materials through the use of the internet, it must first be determined which function will be selected. This decision will lead teachers to develop learning material designs that will be used via the internet. Whichever function is chosen, the instructors are of course required to learn from other instructors or educational institutions that have previously experienced learning activities through the use of the internet (Munir, Pembelajaran Digital, 2017).

Before organizing activities to use the internet for digital learning, teachers are a very determining factor and their skills to motivate learners are crucial. Thus, teachers must be transparent in conveying information about the benefits of learning so that learners can learn well to achieve good learning outcomes. The information meant here includes (1) time allocation for studying learning materials and completing assignments, (2) technological skills that learners need to have to facilitate their learning activities, and (3) facilities and equipment needed in learning activities (Rankin, 2002).

Teachers in electronic learning activities are also required to be active in discussions, for example in the following ways:

- a. respond to any information submitted by learners
- b. prepare and present treatises and various other reference sources
- c. provide guidance and encouragement to learners to interact with each other
- d. provide individual and ongoing feedback to all learners
- e. inspire or encourage learners to stay active in learning and participating in discussions
- f. help learners to keep interacting with each other.

The use of internet technology and the application of digital learning has advantages and disadvantages compared to other systems. Some of the advantages include:

- 1) the ability of the technique to penetrate the boundaries of time and place
- 2) ease of updating the learning material or information to be conveyed
- 3) facilitate the relationship between learners and resource persons
- 4) the opening of a very wide opportunity to learn about other cultures.

As for the challenges of internet technology in the learning process, among others (1) the opening of very wide opportunities to study other cultures allows for a faster acculturation process, so that it can threaten native culture, and (2) different ways of communicating allow misunderstandings to occur during the process. learn.

Digital learning systems need to be studied more deeply and broadly, involving all aspects, such as technology, curriculum design, this design, and human resources. Human resources are a major factor in this sector. For example, a teacher who will teach via the internet, should also have studied via the internet, so that the instructor can overcome any difficulties his learners will encounter during the learning process. In this case, it is the instructor's obligation to find the right solution in the learning process he is going through. Digital learning using information and communication technology starts from the provision of teaching human resources using this internet technology. Teachers apply technology that is accustomed to searching for information on the internet. Teachers can become "expert learners" who can help learners answer and find solutions to all problems. A learner needs a strong motivation to complete the learning process through internet media. Because in digital learning the learning process is centered on the independence of the learner. Meanwhile, the teacher acts as a facilitator or facilitator for learners to learn by constructing the information they know.

Using the internet media in organizing digital learning has several benefits, including:

- a) learning via the internet is that learners can learn from anywhere and anytime
- b) shorter time and more efficiently using the web, all of these things can be reduced in a short time. Only by uploading to the internet, everyone from anywhere and anytime can access or read the learning material
- c) reach various places
- d) books or learning modules are no longer the only learning material as in conventional learning.

#### **D. CONCLUSION**

The use of the internet or intranet as a medium for learning has led to the use of information and communication technology in the education sector which has begun to be seen with the emergence of learning portal sites. The use of information and communication technology in education should pay attention to the signs that will regulate the process of the education system, so that the use of information and communication technology can run well. Technology is only a tool that can help humans, so that its use must be addressed wisely and very useful benefits will be obtained in the world of education.

#### **REFERENCES**

- Arsyad, A. (2003). *Media Pembelajaran*. Jakarta: PT. Raja Grafindo Persada.
- Brilianto, R. (2007). *Panduan Praktis Internet Plus*. Jakarta: Puspa Swara.
- Daradjat, Z. (1995). *Metode Khusus Pengajaran Agama Islam*. Jakarta: Bumi Aksara.
- Hadi, S. (2008). *Panduan Brinternet Bagi Pemula*. Surabaya: Tiara Aksa.
- Hamalik, O. (1994). *Media Pendidikan*. Bandung: Citra Aditya Bakti.
- Hill, A. Y.-H. (1993). *Teknologi Dalam Sejarah Islam*. Bandung.
- Latif, Y. (1996). Teknologi Sebagai Masalah Kebudayaan. *Jurnal Ulumul Qur'an*, 58-59.
- Miarso, Y. (1986). *Teknologi Komunikasi Pendidikan Pengertian dan Penerapannya di Indonesia*. Jakarta: Pustekkom Dikbud dan CV Rajawali.
- Munir. (2009). *Pembelajaran Jarak Jauh Berbasis Teknologi Informasi dan Komunikasi*. Bandung: Alfabeta.

- Munir. (2017). *Pembelajaran Digital*. Bandung: Alfabeta.
- Sabri, A. (2005). *Strategi Belajar Mengajar dan Micro Teaching, Quantum Teaching*. Ciputat.
- Sadiman, A. S. (2000). Peran Teknologi Informasi Dalam Meningkatkan Mutu Pendidikan Dasar. *Jurnal Teknodik*, 7.
- Usman, A. d. (2002). *Media Pembelajaran*. Jakarta Selatan: Ciputat Press.
- Yuhelizar. (2008). *10 Jam Menguasai Internet Teknologi dan Aplikasinya*. Jakarta: PT. Elex Media Komputindo.