

Benefits of Information Technology in Education

Dona Santika^{1*}, Aisyah Amini Saragih², Muthi Nur Hanifah³

Universitas Muhammadiyah Sumatera Utara^{*1, 2, 3}

^{*1}email: donasantika841@gmail.com,

²email: aisyahaminisrg@gmail.com,

³email : muthinur0210@gmail.com

ARTICLE INFO	ABSTRACT
<p>Article history: Received: October 15, 2022 Revised: November 18, 2022 Accepted: December 23, 2022 Available Online: January 03, 2023</p> <p>Keywords: <i>Technology, Information Technology, Education</i></p>	<p>The purpose of this study was to determine the effect of information technology on education. This research is a literature study which is a type of qualitative research. The data analysis used is the Miles and Huberman analysis model, namely collecting data, reducing data, presenting data and drawing conclusions. The results of this study are that information technology is man-made to help make it easier for humans to find and receive information, especially in the world of education. The benefits that can be felt with the existence of information technology are as follows: (1) To facilitate activities in school management; (2) As a medium of information in learning; (3) Assist and support development. The purpose of this research is to determine the effect of information technology on education. This research is a literature study which is a type of qualitative research. The data analysis used is the Miles and Huberman analysis model, namely collecting data, reducing data, presenting data and drawing conclusions. The results of this study are that information technology is man-made to help make it easier for humans to find and receive information, especially in the world of education. The benefits that can be felt with the existence of information technology are as follows: (1) To facilitate activities in school management; (2) As a medium of information in learning; (3) Assist and support educational development.</p>
<p>Please cite this article: Santika, D., Saragih, A.A., & Hanifah, M.N., (2023). Benefits of Information Technology in Education. <i>Integrasi: Jurnal Studi Islam dan Humaniora</i>, 1(1), 27-36.</p>	
<p>Page: 27-36</p>	<p>Copyright© 2023. Integrasi: Jurnal Studi Islam dan Humaniora. This is an open acces article under the CC-BY-SA lisence (https://creativecommons.org/licenses/by-sa/4.0/).</p>

A. Introduction

The meaning of learning technology is an application or media that has been designed in a modern way and is utilized as theory and practice in learning as a learning

resource. Currently, the technology that is widely used in education is information technology. The existence of information used for learning media can have a positive impact on students, namely they can more easily find the information needed during the learning process (Fitriyadi, 2013). The media that can be used is to provide computers and the internet in each school.

In today's modern era, the application of information systems is so important to support work activities. With the development of information technology, building an information system aims to help improve office performance and operations. The same goes for its application in the world of education. The progress of information and communication media is growing rapidly. This supports the world of education to improve the quality and quality of education itself and provide new ways of learning to facilitate the learning process. The progress of information technology is so rapid that it influences the world of education to innovate to support learning activities. Students can get to know more about technological developments and can use them as learning aids.

We can apply increased technology in this modern era of globalization to the world of education as more and more sophisticated facilities to expedite the learning process. This is where we convey the importance of technology, we must always follow its developments (Komalasari, 2020). the use of technology is proven to be able to increase children's interest in learning because the appearance is more attractive so that it will avoid feeling bored while participating in learning. like in Indonesia most learning using technology has not been implemented for example in rural areas far from cities there are still many students and even teachers do not understand what technology is used for how to apply it etc.

This is where it is important that we have to go deeper into discussing what the uses of this technology are in the world of education and even in people's lives in general where everything is easier and better to do from technology, for example online shopping where goods are now cheaper online than we buy directly from them. the

characters are not to mention the time and energy that is drained because there are far away places to shop.

There is a need for human resources in the field of information technology who have the expertise and competence to be able to apply information technology in various forms of educational activities in order to achieve these educational goals, as well as the development of various characteristics of expertise in the field of information technology that need more in-depth studies related to various sectors in world of education, such as Information Technology Management, Development of Information Systems or Information Technology, Information Systems/Information Technology Strategic Planning, and so on. In the world of education, the development of information technology is starting to have a positive impact. Because, with the development of information technology, the world of education began to show significant changes.

Information and Communication Technology (ICT) has developed very rapidly and has fundamentally brought about significant changes in the acceleration and innovation of education delivery in various countries. In fact, there is enormous pressure from Information and Communication Technology on the education system globally because: (i) developing technology provides enormous opportunities for developing education management and learning processes in schools, (ii) specific student learning outcomes can be identified by using these new technologies, and (iii) Information and Communication Technology has enormous potential to transform all aspects of education in schools and utilize them to achieve learning goals (Nuryana, 2019).

Information technology can be said as something that can provide convenience and comfort in various aspects. The benefits of technology in learning are also very influential. Technology and education are something that cannot be separated, because these two aspects are interconnected. As we have both experienced from the end of 2019-2021, Indonesia and even the whole world have been hit by deadly disease

outbreaks. the question is covid 19 which requires all activities to be carried out from home such as schools students and teachers conduct learning from home with online learning where students and teachers are required to understand technology. During the pandemic conditions until now technology has played a very important role in learning, students and teachers can do learning even without face-to-face meetings. Technology is a limitless learning medium, because teachers and students can do learning anytime and anywhere.

With the existence of technology, students' interest in learning is increasing because more complete information and knowledge and easy access can make learning interest more enthusiastic (Sudibyo, 2011). The use of technology in education does have several benefits for continuity of learning. However, on the other hand the teacher must keep an eye on students and make use of technology. Because of the ease with which information is accessed students can access negative information so that it damages or becomes bad behavior.

In everyday life, many people exchange the terms information technology and information systems at will, without knowing the fundamental difference behind these two trending terms. It's good that in this information age, the meaning of the two terms is clarified so that there are no misunderstandings, especially if representatives of technology practitioners from Indonesia have to speak in international forums. The term 'information technology' came into widespread use in the mid-80s. This technology is the development of computer technology combined with telecommunications technology. and so on, are examples of information technology products.

Thus, in the world of education, information technology is a technology that is used to process data into information and distribute information related to the educational process within certain space and time limits (Suyanto, 2005). This can be seen from several things related to the use of information technology in supporting educational activities such as the use of information and communication technology in school management, the application of information technology in curriculum

implementation, the use of the internet as a learning medium, the use of computer assisted instruction (CAI) and others.

B. Methods

This research is a type of qualitative research with a library research approach. Research with the literature study method is research by utilizing reference sources and theories in obtaining the data you want to find. Thus the scope of this study is limited to materials from library collections without any field research.

C. Result and Discussion

Information and Communication Technology plays a very important role in terms of school management or in school management. Of course, this benefit can be felt by all stakeholders related to the school. These benefits include:

1. Benefits for the government

The government has provided policies regarding the use of information and communication technology in curriculum implementation, of course this policy also helps the stakeholders below it. The plan for the development and implementation of information and communication technology in Indonesia has been formulated in Presidential Instruction number 6/2001. This instruction was followed up in the form of a five-year information and communication technology development plan with priority on collaboration between the information and communication technology industry and information and communication technology in educational institutions (2001 -2005); Development and implementation of information and communication technology curriculum (2001 - 2004); The use of information and communication technology as an essential part of the curriculum of learning tools in schools, universities and training centers (2001-2005). In 2003, the government again issued 3 new policies, namely the 2003 National Education System Law (Rasul J & Hamid A, (2008).

The three dimensions of innovation – curriculum, professional development and organizational management – can mutually support one another, or can otherwise stifle effective development. Thus the benefits of information technology in school management for the government are (1) assisting the availability of an accurate database and efficient flow of information regarding the profile and map of education in Indonesia, (2) accelerating equity in achieving national education standards, (3) assisting in controlling the implementation of education

2. Benefits for schools

The benefits of information technology for schools are, (1) Helping schools improve their management and operational systems; (2) assisting schools in terms of channeling information regarding school profiles and student learning outcomes to parents and other stakeholders; (3) helping schools to provide up-to-date and relevant information sources for teachers and students.

3. Benefits for teachers

The benefits of information technology for teachers are, (1) opening opportunities for teachers to develop teaching materials based on Information and Communication Technology, interesting, innovative and stimulating students' curiosity; (2) assisting teachers to develop lesson plans including providing comprehensive and up-to-date multimedia learning resources; (3) makes it easier for teachers to monitor student learning progress.

4. Benefits for parents

The benefits of information technology for parents namely; (1) monitoring the activities and learning outcomes of their children at school, (2) looking at school assignments given to children so that parents can participate in children's learning activities, (3) looking at various school programs that students can participate in, (4) to be an interactive medium between schools, teachers and parents, and (5) to help monitor the educational process directly.

5. Benefits for students

The benefits of information technology for students namely; (1) helping students to be skilled at using Information and Communication Technology in their lives, (2) helping students to see and examine study material per meeting, (3) helping students to work on assignments and exams given by the teacher online, (4) help students build collaborative work, (5) motivate students to develop the necessary knowledge and skills in line with advances in science and technology.

6. Benefits for school committees

The benefits of information technology for students are, (1) making it easier for committee members to monitor and evaluate education programs in schools, (2) making it easier for committee members to communicate with teaching and education staff at schools, (3) making it easier for committee members to be involved in compiling and designing school management development programs and improving the quality of learning. Thus information and communication technology can facilitate all activities related to the school management process, both for the government, for schools, for teachers, for parents of students, for students and for school committees. The function is of course to get results from the educational process more effectively and efficiently.

Benefits of Information Technology As Learning Media

The current development of information technology has spread and entered every aspect of human life. Information technology currently plays a large role in business activities, organizational structure changes, and organizational management. On the other hand, information technology also plays a large role in scientific development and is the main tool in an academic institution. Quoting what Kadir said, broadly speaking, information technology has a role: (1) can replace the role of humans, in this case it can automate tasks or processes; (2) strengthen the role of humans, namely by presenting information on a task and process. ; (3) play a role in restructuring the role of humans, in making changes to a collection of tasks and processes (Cholik C. A, 2017).

Based on the above understanding, the presence of information technology has provided strength and is a great potential if used properly. Referring to the explanation above, of course, the role of information technology, especially the internet, cannot be denied and has made a big contribution. Roy suryo, has given us an overview of how information technology has played an important role in an information communication. Where in the 50s the communication media used were clocks and turtles, in the 50s to 70s the media used were letters and telex, in the 70s to 90s the media used were telephone and fax, and in the 90s until now, the media used are cellphones (HP), PCs (computers), and the internet. Based on Indonesian statistical data, it can be seen that especially in Indonesia, there are 11.5 million people who access the internet or 5.2% of the total population of Indonesia.

Benefits of Information Technology in Educational Development

The application of educational technology in education should make the educational process in general and the teaching and learning process in particular more efficient, more effective and provide positive added value.

Effective and efficient means that educational efforts should be able to achieve the goals outlined with the least possible cost, effort and time. Conditions like those mentioned above are possible because educational technology has several potentials as stated by Ely in Sadiman as follows: 1) Increasing educational productivity; 2) Providing education that is more individual in nature; 3) Provide a scientific basis for teaching.

Technological developments always have a very high role and contribute to the direction of the development of the world of education. In the history of the development of education, information technology is part of the media used to convey messages of knowledge to the public, starting from printing technology several centuries ago, such as printed books, to telecommunication media such as sound recorded on tapes, videos, television, and CDs (Anshori S, 2018). The current development of information technology has directed the history of educational

technology to a new path. Online services in education, both with degrees and without degrees, are basically providing educational services for users (students) by using the internet as a medium. This online service can consist of various stages of the educational program process such as: registration, entrance test, payment, lectures, case assignments, case discussions, examinations, assessments, discussions, announcements, etc. Distance education can take full advantage of internet technology, can provide effectiveness in terms of time, place and even improve the quality of education.

D. Conclusion

Information technology is man-made to help make it easier for humans to find and receive information, especially in the world of education. The benefits that can be felt with the existence of information technology are as follows: (1) To facilitate activities in school management; (2) As a medium of information in learning; (3) Assist and support educational development.

E. References

- Anshori, S. (2018). Pemanfaatan Teknologi Informasi Dan Komunikasi Sebagai Media Pembelajaran. *Civic-Culture: Jurnal Ilmu Pendidikan PKn dan Sosial Budaya*, 2(1).
- Cholik, C. A. (2017). Pemanfaatan teknologi informasi dan komunikasi untuk meningkatkan pendidikan di Indonesia. *Syntax Literate; Jurnal Ilmiah Indonesia*, 2(6), 21-30.
- Fitriyadi, H. (2013). Integrasi teknologi informasi komunikasi dalam pendidikan: potensi manfaat, masyarakat berbasis pengetahuan, pendidikan nilai, strategi implementasi dan pengembangan profesional. *Jurnal Pendidikan Teknologi dan Kejuruan*, 21(3).
- Indrajit, R. E. (2000). Manajemen sistem informasi dan teknologi informasi. *Jakarta: PT Elex Media Komputindo*.

- Jamun, Y. M. (2018). Dampak teknologi terhadap pendidikan. *Jurnal Pendidikan dan Kebudayaan Missio*, 10(1), 48-52.
- Komalasari, R. (2020). Manfaat Teknologi Informasi dan Komunikasi di Masa Pandemi Covid 19. *Tematik: Jurnal Teknologi Informasi Komunikasi (e-Journal)*, 7(1), 38-50.
- Nuryana, Z. (2019). Pemanfaatan teknologi informasi dalam pendidikan agama islam. *TAMADDUN: Jurnal Pendidikan dan Pemikiran Keagamaan*, 19(1), 75-86.
- Rasul, J., & Hamid, A. (2008). Teknologi Informasi dan Komunikasi. *Bogor, QUADRA*.
- Simarmata, J., Chaerul, M., Mukti, R. C., Purba, D. W., Tamrin, A. F., Jamaludin, J. & Meganingratna, A. (2020). *Teknologi Informasi: Aplikasi dan Penerapannya*. Yayasan Kita Menulis.
- Sudibyo, L. (2011). Peranan dan Dampak Teknologi Informasi dalam Dunia Pendidikan di Indonesia. *Jurnal WIDYATAMA Universitas Veteran Bangun Nusantara Sukoharjo*, 20(2), 175-185.
- Suyanto, M. (2005). *Pengantar teknologi informasi untuk bisnis*. Penerbit Andi.