Discussing Educational Technology With Arabic Language Learning

M. Imam Fakhrurrozy¹, Agus Riwanda², Muhamad Fatkhul Muin³, Siti Anisa Sholehati⁴, Heru Diantoro⁵

 ¹Universitas Islam Negeri Antasari, Indonesia
 ² Universitas Islam Negeri Sunan Ampel, Indonesia
 ³Institut Agama Islam Negeri Metro, Indonesia
 ⁴ Universitas Islam Negeri Antasari, Indonesia
 ⁵ Institut Agama Islam Negeri Metro, Indonesia
 @mhs.uin-antasari.ac.id¹,@student.uinsby.ac.id²,
 mfatkhulmuinnn@gmail.com³,@mhs.uin-antasari.ac.id^{4*}, herudiantoro96@gmail.com⁵

Abstract. The application of educational technology in Arabic language learning can increase student interactivity and engagement. With apps, online platforms, and digital resources, learning has become more interesting and relevant for the technology-savvy generation. The article aims to provide an in-depth understanding of the involvement of technology in Arabic language learning. This article is prepared by taking into account the results of research that has been carried out by previous experts. The use of educational technology in Arabic language learning can provide a variety of benefits. Technology can help improve the interactivity, accessibility, and effectiveness of learning. By utilizing apps, online platforms, or other digital resources, learning Arabic can become more engaging, affordable, and accessible to learners.

Keywords: Educational Technology, Arabic Language Learning, Arabic Language Teaching.

INTRODUCTION

Learning is an effort to create an atmosphere for students to learn with the purpose of learning must support and achieve learning goals. The previous model of learning focuses more on teacher activities and is not concentrated on student activities. But at this time learning is tried to be related to learning, so in designing learning activities teachers must learn from the learning activities of students and must be used as a starting point in designing learning.

Generations that grew up and developed in different eras tend to have different lifestyles, characters, and learning pleasures. The alpha generation is a continuation of generation Z which was born when information and communication technology was booming (Thangavel et al., 2021). Examining the diversity of attitudes, behaviors and tendencies of each generation as described above is not an exaggeration to say that educational challenges are increasingly complex. The complexity is because the change in learning goals is so rapid and massive that educators update science and technology at all times (Szymkowiak et al., 2021).

In the 21st century, technology is growing rapidly that should be used by anyone, including teachers and students. In the era of 5.0 intensified with a learning system that focuses on students. Technological progress always has a negative and positive impact. Technology has affected society and its surroundings in many ways. The wide variety in the use of technology has influenced the value of a society and often raises new ethical questions (Holmes et al., 2022).

Along with future demands that are not only competitive but also related to various advances in technology and information, the quality of the learning system developed must also be able to be quickly improved from existing weaknesses. Because learning using technology is an alternative that can overcome learning problems. Learning foreign languages, including Arabic, is inseparable from the problems of learning difficulties (Jaafar et al., 2023). The presence of information technology is then utilized in the learning process as much as possible to overcome and provide solutions or solutions in overcoming Arabic learning problems (Prihartini et al., 2022), especially in Indonesia. Because technology in learning is used as one way out of the problems of Arabic as a foreign language.

METHOD

The writing of this article is based on a comprehensive study of the involvement of educational technology in Arabic language learning. The first step of researchers is to collect some research results obtained in reputable national and international scientific journals. Then researchers collect theories, arguments, and research results obtained from research articles that researchers have explored during data collection.

RESULTS & DISCUSSION

Learning Technology as a Basis for Education Development

Information technology was born in the 20th century, starting with the

formation of the information society. Then information technology is associated with the term Communication Technology which functions as a distribution of information as well as storage and processing of information. Until finally people often refer to communication technology as information technology. Initially, information technology was defined as hardware and software to carry out one or a number of data processing tasks (Himanen et al., 2019). Because its development has received a wider response, information technology has also become a communication technology as well as a means of sending information.

Educational technology is a continuation of the development of studies on the use of audiovisual and learning programs in the provision of education (Nicolaou et al., 2019). The study is essentially an attempt to solve human learning problems. The solution taken through the study of educational technology that solving learning problems uses appropriate approaches with many uses of learning resources. The perception at this time states that educational technology is the same as the media, the position of the media serves as a means to facilitate the delivery of information or learning materials. In terms of the education system, the position of educational technology functions to strengthen curriculum development, especially in design and development and implementation (Knox, 2020).

Etymologically the word technology comes from the Greek words techne which means art craft, and skill and logia which means the word, study or body of science. The term technology comes from the word "textere" (Latin) meaning "to weave or construct" i.e. weave or build. Saettler explained that technology does not always use machines as we imagine, but refers to any practical activity that uses a certain science or knowledge (Wegemer, 2019).

Then in terminology, technology is the knowledge of making something. According to Christensen et al., technology is the application of knowledge to practical purpose, meaning technology is the application of knowledge for a practical purpose (Christensen et al., 2022). Then Granić & Marangunić defined that technology is the systematic application of scientific or other organized knowledge to practical tasks (Granić & Marangunić, 2019), meaning the systematic application of scientific knowledge or other organized knowledge to practical tasks.

Some definitions of technology include, technology is a rational discipline designed to ensure human mastery of the physical realm, through the application of scientifically determined laws, technology is practical and

systematic knowledge based on scientific experiments and/or theories, which increases the capacity of society to produce goods and services embodied in productive skills, organizations, or machines, Technology draws on contemporary educational theories and tools to design environments to carry out learning in a reliable and effective manner.

Learning technology is an effort to design, develop and utilize learning resources so that it can be used to facilitate and facilitate someone in learning anywhere and anytime by anyone according to their conditions and needs. Information technology is a means of infrastructure in the form (software, hardware, userware) of systems and methods to obtain, transmit, process, interpret, store, organize and use data meaningfully (Alaimo & Kallinikos, 2022). Therefore, information technology provides convenience in managing information both in storing, retrieving, and updating information. The function of information technology in an education includes as a repository of knowledge, learning aids, educational facilities, competency standards, administrative support, school management aids, educational infrastructure (Nguyen & Tuamsuk, 2022). Learning technology is an effort with or without machines available or utilized, to manipulate the individual environment so that changes in behavior or other learning outcomes are expected (Oliveira et al., 2021). From the various understandings put forward about educational technology and learning technology have different concepts. The relationship between learning technology and educational technology is understanding and theoretical framework. Learning technology is part of educational technology.

From some of the definitions above, it can be concluded that technology is a form of combination of knowledge and skills obtained through the study process and aims to facilitate human activities. Although this definition does not explicitly say that learning technology is a medium, but the concepts used such as messages in picture and unrepresented messages, tools, methods and communication media show an emphasis on learning media.

Technology as an application of knowledge

The application of knowledge means to make something abstract concrete, by patenting as people do through model development (Obschonka et al., 2023). If this definition of technology is used, then all efforts to patent the work are one part of the study of learning technology.

Technology as a practical purpose

The development of science must refer to aspects of usefulness for everyone (Rapanta et al., 2020). That is, this practical goal means the ethical benefits felt by society from the results of the application of knowledge. The practical purpose of the application of knowledge is not only for the development of science itself, but also the ethical benefits felt by other beings. *Dynamics of change*

The dynamics of this change are caused by the application and purpose of applying science (Winter et al., 2021). Technological changes cause human changes in terms of knowledge, attitudes, and behavior in terms of the technological culture adhered to.

Learning technology plays an important role in supporting a fun learning process. The role of learning technology can be seen from two perspectives. For teachers, their role is to support the presentation of material (- Lie et al., 2020). As for students, as users of technology to receive information (Al Kurdi et al., 2020). The main objectives of learning technology are: 1) to solve learning problems or facilitate learning, 2) to improve performance. Then the development of learning technology has several characteristics, namely: 1) applying a system approach, 2) using the widest possible learning resources, 3) aiming to improve the quality of human learning, 4) oriented to individual instructional activities.

The Existence of Educational Technology in Arabic Language Learning

Furthermore, the term learning is seen as anything that is done purposely to facilitate learning. Learning is something that is done intentionally to facilitate learning. Instruction refers to the deliberate arrangement of learning conditions to promote the attainment of some intended goal (Reeve & Shin, 2020). That is, learning refers to the deliberate setting of learning conditions to achieve supporting the achievement of desired goals.

Learning is a combination of teaching and learning in fostering student activities. Then these two things are seen as a system that has several components such as students, objectives, materials, facilities, procedures and media developed (Gumantan et al., 2021). Then in the learning system includes organizing consisting of humans, learning experiences, facilities, maintenance or control and procedures related to learning interactions to achieve goals. Gacs, et. All., also conduct the teaching system there are several components contained in it such as teaching planning, teaching materials, objectives, materials and methods, as well as assessment and teaching steps will be related to learning activities to achieve goals (Gacs et al., 2020).

Arabic language learning should be taught by people who master the Arabic language and understand the learning in accordance with academic and

pedagogic. The teacher's knowledge of the problems of teaching Arabic needs to be known so that he is able to find the right solution in learning. Because in Arabic there are problems that arise both from the language itself and non-linguistic problems (A. Manangin et al., 2023).

The learning trend of the 21st century is characterized by an increase in the complexity of learning technologies, and the emergence of a corporative restructuring movement that emphasizes a combination of technological and human qualities. Advances in the field of audiovisual learning have invited the attention of many learning technology scientists to formulate definitions of learning technology in developing the direction and development of this field so as to contribute positively to nation building and educating human life. The use of technology in Arabic language learning is believed to have a positive effect. Learning technology is an area of interest in facilitating learning in humans through systematic efforts in identifying, organizing, developing, and utilizing various learning resources and by managing the entire process (Zhang et al., 2020). With the expectation, learning technology will be successful in the learning process.

Arabic Learning Technology and Its Characteristics

There are 3 characteristics seen from a technological perspective, symbol systems, and processing capabilities (Neumann et al., 2021). First, the characteristic that clearly indicates the function of media is technology in which its mechanical and electronic aspects make it easy to classify media such as: television, radio, newspapers, books, the internet, and so on. Technological aspects have a strong enough influence on increasing human intelligence (cognitive aspects).

Second, the symbol system was examined in depth by Kang et, all., who described the relationship between the symbol system of media and mental representation (Kang et al., 2020). A symbol system is a display model or series of elements (such as words and image components) that are interconnected in any sentence system and used in a way that can be specified in conjunction with the referenced field (such as words and sentences in text that represent the people, things, and activities arranged to form a story. Third, media can also be described by the ability of processing to facilitate students to carry out their activities effectively and efficiently. So that students can obtain better information from human hands.

Technology has an important role in education, technology and learning media are specifically designed to contribute to learning programs. The effective contribution of a technology and learning media can be seen from the results of student learning obtained (Castro & Tumibay, 2021). Therefore, technology and learning media can increase the effectiveness of the teaching and learning process and improve learning outcomes.

To realize the demands of development in learning, teachers must plan and organize the learning environment so that students are challenged to learn Arabic. Teachers/lecturers have a significant influence on their students. Technology and learning media as well as learning strategies chosen and implemented by teachers will affect student learning outcomes.

Educational Technology Engagement in Indonesian Arabic Learner

When an Indonesian in the process of learning a foreign language, he actually faces the same problem when learning the mother tongue, namely through the stages of recognition, hearing, pronunciation and writing. However, the stages taken are certainly in a much different form, for example differences in sound, vocabulary, grammar and writing. Arabic has its own characteristics that do not exist in Indonesian. For example, the writing starts from the right, several different sounds such as zha, qa, and gha, and others, as well as sentence patterns that can be preceded by verbs that are not found in Indonesian sentence structure.

These differences certainly provide opportunities for difficulties in learning Arabic for non-Arabs (Calafato & Tang, 2019). However, various efforts are made by educators to improve the ability of students in Arabic. Starting from the innovation of learning models to the use of information and communication technology. It is undeniable that the existence of information technology and utilizing it in various sectors of life makes everything easier, faster and more efficient. Including its use in the world of education makes the learning process easier, flexible and fun by utilizing audiovisual multimedia. However, one thing that the author analyzes from the conveniences provided by information technology such as computers, is to make learners unskilled in writing hijaiyah letters and stringing them into Arabic sentences when asked to write using manual stationery.

If so, educators at least balance between the use of information technology and training students to write manuals in the learning process in order to improve writing skills for students. On the other hand, the use of information technology is not so optimal in overcoming the problem of learning Arabic. This is because there are still human resources of Arabic language educators who are not able to operate information technology, especially processing teaching materials in the form of multimedia that utilizes technology.

CONCLUSION

From several problems in Arabic language learning, it can be concluded that some of the learning factors involved are material arrangements for each level (managerial), student motivation, contextual approaches, learning media, improving teacher competence, learning effectiveness, and language communities. So some of the benefits of technology.

Referensi

- Jurnal Artikel

- A. Manangin, A. R., Hairuddin, H., & Hj. Bahri, R. B. (2023). Non-Linguistic Problems in Arabic Language Learning at Madrasah Aliyah in Kotamobagu City. Al-Kalim : Jurnal Pendidikan Bahasa Arab Dan Kebahasaaraban, 2(1), 29–50. https://doi.org/10.60040/jak.v2i1.16
- Al Kurdi, B., Alshurideh, M., & Salloum, S. A. (2020). Investigating a theoretical framework for e-learning technology acceptance. *International Journal of Electrical and Computer Engineering (IJECE)*, 10(6), 6484. https://doi.org/10.11591/ijece.v10i6.pp6484-6496
- Granić, A., & Marangunić, N. (2019). Technology acceptance model in educational context: A systematic literature review. British Journal of Educational Technology, 50(5), 2572–2593. https://doi.org/10.1111/bjet.12864
- Gumantan, A., Nugroho, R. A., & Yuliandra, R. (2021). Learning During the Covid-19 Pandemic: Analysis of E-Learning on Sports Education Students. *Journal Sport Area*, 6(1), 66–75. https://doi.org/10.25299/sportarea.2021.vol6(1).5397

- Holmes, W., Porayska-Pomsta, K., Holstein, K., Sutherland, E., Baker, T., Shum, S. B., Santos, O. C., Rodrigo, M. T., Cukurova, M., Bittencourt, I. I., & Koedinger, K. R. (2022). Ethics of AI in Education: Towards a Community-Wide Framework. *International Journal of Artificial Intelligence in Education*, 32(3), 504–526. https://doi.org/10.1007/s40593-021-00239-1
- Jaafar, A., Deni, E. P., Febriani, A., Lestari, R., Yelliza, M., & Sari, W. W. (2023). Problems of Learning Arabic in Islamic Boarding Schools. *International Journal of Multidisciplinary Research of Higher Education*, 6(3), 147–154. https://doi.org/10.24036/ijmurhica.v6i3.141
- Lie, A., Mina Tamah, S., Gozali, I., Retno Triwidayati, K., Sari Diah Utami, T., & - Jemadi, F. (2020). Secondary School Language Teachers' Online Learning Engagement during the Covid-19 Pandemic in Indonesia. *Journal of Information Technology Education*: Research, 19, 803–832. https://doi.org/10.28945/4626
- Neumann, W. P., Winkelhaus, S., Grosse, E. H., & Glock, C. H. (2021). Industry 4.0 and the human factor – A systems framework and analysis methodology for successful development. *International Journal* of Production Economics, 233, 107992. https://doi.org/10.1016/j.ijpe.2020.107992
- Oliveira, G., Grenha Teixeira, J., Torres, A., & Morais, C. (2021). An exploratory study on the emergency remote education experience of higher education students and teachers during the COVID-19 pandemic. *British Journal of Educational Technology*, 52(4), 1357–1376. https://doi.org/10.1111/bjet.13112
- Thangavel, P., Pathak, P., & Chandra, B. (2021). Millennials and Generation
 Z: a generational cohort analysis of Indian consumers.
 Benchmarking: An *International Journal*, 28(7), 2157–2177.
 https://doi.org/10.1108/BIJ-01-2020-0050

Proceeding Fakultas Ushuluddin, Adab dan Dakwah IAIN Kerinci. Volume 2, Nomor 1, 2024. 50

Wegemer, C. (2019). Brain-computer interfaces and education: the state of technology and imperatives for the future. *International Journal of Learning Technology*, 14(2), 141. https://doi.org/10.1504/IJLT.2019.101848

- Sumber online

- Alaimo, C., & Kallinikos, J. (2022). Organizations Decentered: Data Objects, Technology and Knowledge. Organization Science, 33(1), 19–37. https://doi.org/10.1287/orsc.2021.1552
- Calafato, R., & Tang, F. (2019). The status of Arabic, superdiversity, and language learning motivation among non-Arab expats in the Gulf. Lingua, 219, 24–38. https://doi.org/10.1016/j.lingua.2018.11.003
- Castro, M. D. B., & Tumibay, G. M. (2021). A literature review: efficacy of online learning courses for higher education institution using meta-analysis. Education and Information Technologies, 26(2), 1367–1385. https://doi.org/10.1007/s10639-019-10027-z
- Christensen, R., Hodges, C. B., & Spector, J. M. (2022). A Framework for Classifying Replication Studies in Educational Technologies Research. Technology, Knowledge and Learning, 27(4), 1021–1038. https://doi.org/10.1007/s10758-021-09532-3
- Gacs, A., Goertler, S., & Spasova, S. (2020). Planned online language education versus crisis-prompted online language teaching: Lessons for the future. Foreign Language Annals, 53(2), 380–392. https://doi.org/10.1111/flan.12460
- Himanen, L., Geurts, A., Foster, A. S., & Rinke, P. (2019). Data-Driven Materials Science: Status, Challenges, and Perspectives. Advanced Science, 6(21). https://doi.org/10.1002/advs.201900808
- Kang, X., Eerland, A., Joergensen, G. H., Zwaan, R. A., & Altmann, G. T. M. (2020). The influence of state change on object representations in language

comprehension. Memory & Cognition, 48(3), 390–399. https://doi.org/10.3758/s13421-019-00977-7

Knox, J. (2020). Artificial intelligence and education in China. Learning, Media and Technology, 45(3), 298–311. https://doi.org/10.1080/17439884.2020.1754236

Nguyen, L. T., & Tuamsuk, K. (2022). Digital learning ecosystem at educational institutions: A content analysis of scholarly discourse. Cogent Education, 9(1). https://doi.org/10.1080/2331186X.2022.2111033

- Nicolaou, C., Matsiola, M., & Kalliris, G. (2019). Technology-Enhanced Learning and Teaching Methodologies through Audiovisual Media. Education Sciences, 9(3), 196. https://doi.org/10.3390/educsci9030196
- Obschonka, M., Tavassoli, S., Rentfrow, P. J., Potter, J., & Gosling, S. D. (2023). Innovation and inter-city knowledge spillovers: Social, geographical, and technological connectedness and psychological openness. Research Policy, 52(8), 104849. https://doi.org/10.1016/j.respol.2023.104849
- Prihartini, Y., Buska, W., & Yusmarni, Y. (2022). Implementation of Online Arabic Learning With the Help of WhatsApp Media During the Covid-19.
 Proceedings of the 4th International Colloquium on Interdisciplinary Islamic Studies in Conjunction with the 1st International Conference on Education, Science, Technology, Indonesian and Islamic Studies, ICIIS and ICESTIIS 2021, 20-21 October 2021, Jambi. https://doi.org/10.4108/eai.20-10-2021.2316356
- Rapanta, C., Botturi, L., Goodyear, P., Guàrdia, L., & Koole, M. (2020). Online University Teaching During and After the Covid-19 Crisis: Refocusing Teacher Presence and Learning Activity. Postdigital Science and Education, 2(3), 923–945. https://doi.org/10.1007/s42438-020-00155-y
- Reeve, J., & Shin, S. H. (2020). How teachers can support students' agentic engagement. Theory Into Practice, 59(2), 150–161. https://doi.org/10.1080/00405841.2019.1702451

- Szymkowiak, A., Melović, B., Dabić, M., Jeganathan, K., & Kundi, G. S. (2021). Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. Technology in Society, 65, 101565. https://doi.org/10.1016/j.techsoc.2021.101565
- Winter, E., Costello, A., O'Brien, M., & Hickey, G. (2021). Teachers' use of technology and the impact of Covid-19. Irish Educational Studies, 40(2), 235–246. https://doi.org/10.1080/03323315.2021.1916559
- Zhang, T., Shaikh, Z. A., Yumashev, A. V., & Chłąd, M. (2020). Applied Model of E-Learning in the Framework of Education for Sustainable Development. Sustainability, 12(16), 6420. https://doi.org/10.3390/su12166420