Augmented Reality On Instagram As A Medium For Delivering Dakwah In Community Communication 5.0

Dellbi Rahmahdini¹, Siti Meilinda2², Annisa Artha Yunia3³

[1,2,3]Universitas Islam Negeri Raden Fatah Palembang
*Corresponding Email : @uinradenfatah.ac.id

ABSTRACT

Technology developments are becoming a step forward for society to formulate innovations that make one's life easier, one of them is to facilitate the channel of da'wah. This study aims to reveal the role and importance of augmented reality (AR) on Instagram as a medium for delivering da'wah in community communication 5.0. The research was formulated using a descriptive qualitative method through literature studies. Secondary data from previous research was collected using a reading, listening and recording scheme. The data is evaluated through a series of processes of collecting, editing, reducing, presenting data, verifying data, and presenting conclusions. This research succeeded in formulating the implementation of da'wah as one of the foundations for the effective spread of Islam through AR. The application of AR is considered more interesting, fun, useful, interactive, and increases user enjoyment in listening and interacting directly with da'wah. In addition, the design of da'wah messages is formulated in the form of "one content, one message" to provide an integrative understanding of mad'u in receiving da'wah material.

Keywords : Augmented Reality (AR), Da'wah, Technology, Da'wah Media.

Introduction

Dakwah is a form of notification or delivery carried out by Islamic religious leaders with the aim of conveying Islamic messages to the community with the aim of inviting its followers to apply virtuous behavior and provide spiritual awareness. This activity originates from Arabic and plays an important part in the application of Islamic teachings. The high benefits of da'wah make the delivery of da'wah must be carried out in an integrated and synergistic manner between the da'wah giver (da'i) and the da'wah recipient (mad'u) (Yunihardi, 2022) . Therefore, the delivery of da'wah must be adapted to the development of the surrounding community so that it can be effectively and efficiently accepted by the community. This places demands on the preachers to always adapt to technological developments and the media for delivering da'wah which continue to grow rapidly.

In this era, the trend of community communication 5.0 has emerged which has distinctive characteristics with business-based technological developments. Communities are starting to realize and implement massive media use accompanied by high mobilization of messages between one individual and another. The speed of the information transfer process has resulted in the emergence of a new style in society to convey messages, including preaching, so that they can be well received by the public (Yunihardi, 2022) . Moreover, the development of society 5.0 has an impact on the critical characteristics of society in receiving information and processing information according to their perceptions (Aaron, 2021).

Looking further at the development of society 5.0, new breakthroughs emerged that provided renewal in the delivery of messages and community participation in communication. This technology is called augmented reality (AR) (Hagl & Duane, 2018) . AR is increasingly being used in various

industries, such as manufacturing, healthcare, advertising, and the defense sector. In the education sector itself, AR is used to provide interactive and engaging learning experiences. AR forms a more enjoyable learning ecosystem with technology coupled with practical experience simulations in the application of everyday life (Enzai et al., 2020; Saleh Rosmawita, Lestari Hertia, 2023) .

One form of applying AR as a learning medium is Instagram. Based on a survey by We are Social (2022) , Indonesia is the country with the fourth highest number of Instagram users in the world, namely 89.15 million users. This proves that the huge potential of the AR audience when applied on Instagram.

Based on the above, AR is considered more useful as a learning medium, especially for giving da'wah in the era of the development of community communication 5.0. This is the next step in implementing da'wah media after virtual preaching, virtual recitation, and da'wah-based content creators (Kahfi & Zuliana, 2022; Mazaya, 2022; Rakatiwi et al., 2023) . This study aims to analyze the application of da'wah through augmented reality (AR) on Instagram as a conceptualization of community development 5.0.

Method

The research approach method used in this study is a qualitative research method. Qualitative method is a research procedure that produces descriptive data in the form of written or spoken or the behavior of the people being observed. Descriptive research is a way of A study that describes all the data or circumstances of the subject or subjects. We then analyze the research and make comparisons based on the facts (Fadli, 2021) . This qualitative method is used for several reasons. In other words, qualitative methods are more adaptable when dealing with various realities. Because this method is more sensitive, adaptable and increases the mutual influence on the value model used by the researcher. Descriptive studies suggest that research must be carried out solely on the basis of a fact or phenomenon that exists empirically within speakers (Sugiyono, 2017) .

The data collection method was obtained from a literature study. The techniques used in this study are listening techniques and recording techniques (Gunawan, 2013) . Data were analyzed using the process of 1) collecting data, namely the process of collecting data, 2) data editing, namely the process of cleaning data, meaning re-examining data, 3) data reducting, namely data that is simplified, reduced, tidied up, arranged and disposed of incorrectly according to research needs, 4) data display, namely data presentation in the form of descriptive verbality, 5) verification data, namely re-examination of repeated data, and 6) conclusion data, namely the formulation of conclusions on the results of the research presented, both general and specific formulations.

Results

Augmented reality (AR) is a form of innovation that emerges through the development of human technology in visualizing the reality of life. According to research by Santosa et al (2021) , AR is conceptualized as part of the use of computer technology that creates a real-world environment accompanied by incorporating virtual elements into its appearance. Typical AR with a mixed reality (MR) appearance that synergizes the real environment with the virtual environment. Conceptual limitations of AR can be seen as follows.
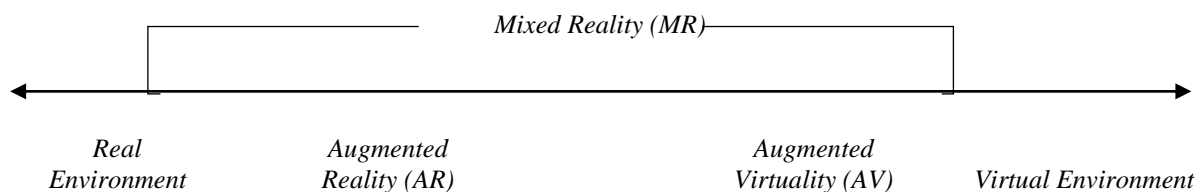
Figure 1. The concept of AR, VR and MR.
Source : Ternier et al (2012)

Da'wah using AR is an alternative that preachers can do to spread material and good messages to mad'u. AR on Instagram with filters integrated into hyper reality is able to provide better and more enjoyable stimulation for mad'u to absorb message after message contained in da'wah. From several studies that analyzed the use of Instagram AR on the absorption effect of learning, especially in disseminating theory, it was found that the use of the Instagram application using AR was considered appropriate for use as a medium for disseminating messages and teaching to the public.

The study conducted a review of 10 studies with the findings described in Table 1.

Table 1 . Study of literature

No.	Writer	Title	Findings
1.	(Porro et al., 2022)	Design of an Intrinsically Motivating AR Experience for Environmental Awareness	AR based on *resized plastic* has succeeded in spreading environmental knowledge to users. Users rate AR is an interesting, fun and useful tool in understanding and memorizing concepts related to the microplastic problem . They find the use of AR interesting, challenging, innovative and useful . as well as directly promote environmental action.
2.	(Sukmawati et al., 2022)	Augmented Reality in Instagram Story Filters for Increasing Awareness through Learning Interactivity and Enjoyment	Audiences feel the interactivity of Instagram stories and enjoy using the app, especially in the learning process through AR filters. The results of the research show that interactivity and *enjoyment* have an impact on increasing awareness. Interactivity can increase people's curiosity to understand the concept of the learning process and lead to increased awareness. On the other hand, *enjoyment* persuade filter reuse and deployment to other audiences.
3.	(Khoiriyah & Setiawan, 2022)	Development of the Instagram Filter Guess the Pillars of Islam Using the Spark AR Application as an Interactive Media for Learning Islamic Religious Education in Elementary Schools	AR in the Instagram filter can effectively provide knowledge and understanding regarding the pillars of Islam. AR uses a vague base with VR which increases comfort, interactivity, and a sense of fun for students to participate directly in guessing the pillars of Islam.
4.	(Andis Indrawan et al., 2021)	Augmented Reality as an Interactive Educational Media in the Covid-19 Pandemic	Augmented Reality is more effective than *video conferencing* in the aspect of increasing interactivity and individual learning interest. AR is positively able to increase the effectiveness of *far from home learning* so that it is effective for distributing material without meeting students directly.
5.	(Dewi & Sahrina,	The Urgency of Augmented	Improve mastery and understanding of concepts, improve

	2021)	Reality as a Learning Innovation Media in Preserving Culture	spatial mathematical abilities, improve visual perception, vocabulary mastery, increase interest in learning, improve understanding of reading texts, improve learning outcomes.
6.	(Muhammad Fauzan Sidik & Vivianti, 2021)	Application of Augmented Reality Technology to Android-Based Interactive Learning Media for Computer Network Installation Materials	AR media through Instagram is easily accessible to students because it can be accessed by Android or *iPhone applications.* Respondents and experts rated the use of the application as interactive with high usage intensity. All AR applications and media used have been assessed as appropriate for disseminating material.
7.	(Barus et al., 2022)	Implementation of Augmented Reality Filters in Micro, Small and Medium Enterprises to Increase Sales	The use of AR can increase the number of user participation and *engagement* , namely 3,434 *Impressions* , 966 *Opens* , 290 *Captures* , 19 *Saves* and 16 *Shares* . The use of AR directly influences people's buying behavior. It is known that there was an increase in sales in December 2021 of 61% compared to November 2021. It is also known that the use of AR is obtained in a situational and seasonal manner by users.
8.	(Satria et al., 2023)	Implementation of Augmented Reality Based on Instagram Filters in the Application of Learning Media About the Introduction to the Solar System	Based on the test, it is known that the use of AR for learning the Solar System can be effectively reformed by students. This learning improves students' visualization and shadows about solar system objects directly which streamlines the learning process. This process is more effective than conventional learning through books.
9.	(Susetya & Harjono, 2022)	Development of Augmented Reality-Based Instagram Filter Media as Science Learning Media to Improve Learning Outcomes of Elementary School Students	AR-based Instagram filters are able to stimulate students so that they are interested in learning material. This can stimulate learning to be more enjoyable . High interactivity in AR filters is able to convey messages that are more understandable than direct explanations from the teacher. The results of the study provide findings on an increase in the learning index of elementary school students using AR-based learning.
10.	(Maha Putra. Angga, 2020)	Augmented Reality-Based Instagram Filter Design with Spark A R Face Mask on the New Media College Account	Filters can significantly increase the impression of use, namely 52,200 times, opened 8,800 times, used 2,000 times, and shared 180 times. The results of the study state that the use of AR effects on Instagram increases interactive and creative impressions .

Discussion

Utilization of AR in Da'wah

Augmented reality (AR) through Instagram filters is one of the best alternatives in delivering material that is fun, interactive, efficient and useful in understanding realities that humans cannot imagine. The results of the literature review revealed that the use of AR was initiated as the latest breakthrough in the world of education to provide *users with independent learning experiences through Instagram technology.*

AR can indeed be used in a variety of learning, especially as a medium in spreading Islamic religious learning through da'wah. Da'wah through AR has a strategic role in bringing goodness to Muslims. As a medium for disseminating information, *augmented reality* plays an important role in mediating between AR creators and users *who* interact directly with AR. Based on the explanations in each of the research findings, it can be interpreted that the use of AR as a learning medium or

dissemination of information provides a better experience than direct explanations by teachers or even learning through video conferences (Andis Indrawan et al., 2021; Satria et al., *2023*) . In this aspect, the dissemination of da'wah material will of course be increasingly widespread among mad'u, who previously could only be reached through direct explanations by preachers or explanations in Islamic videos that are spread on Youtube or social media. The use of AR provides a solution for Muslims to effectively utilize technology for better spirituality.

In addition, several studies have assessed that the use of AR as a medium in disseminating learning material can streamline the learning process because it is considered interesting, fun, and useful in understanding and memorizing concepts related to the material (Dewi & Sahrina, 2021; Muhammad Fauzan Sidik & Vivianti, 2021; Porro et al., 2022) . Moreover, it is known that the aspects that are the main advantages in implementing AR as a learning medium and disseminating material through Instagram are aspects of *user enjoyment* and interactivity (Khoiriyah & Setiawan, 2022; Maha Putra. Angga, 2020; Muhammad Fauzan Sidik & Vivianti, 2021; Santosa et al., 2021; Susetya & Harjono, 2022) . Da'wah by using AR is able to increase people's enthusiasm to learn the virtues and conceptual foundations of Islam which are good for their spirituality. Mad'u will be directly involved in using AR to interact, play, and read information provided by AR related to the Islamic religious studies they choose. They also feel more flexible in using AR because of AR's flexible accessibility. This is different from those attending da'wah directly who have to spend inflexible non-existent time.

Augmented reality (AR) is believed to be able to directly stimulate users to be able to experience visualizations, or even audio, that corresponds to reality in a form that is easier for them to understand. This causes them to know certain material, change perspectives (opinions or perceptions), and change behavior in their daily lives (Barus et al., 2022; Satria et al., 2023) . Therefore, the use of AR as a medium for spreading da'wah can increase individual knowledge of da'wah material that is taught in accordance with Islamic principles. Individuals become more aware of the importance of learning the Islamic religion and its essence so as to bring up better spiritual behavior to get closer to Allah.

The use of Augmented Reality (AR) in the field of education and teaching, including the provision of da'wah, has great potential to improve mad'u ways of learning and interacting with the da'wah material itself. The application of da'wah through AR can be done by raising various concepts, such as visualizing religious concepts, supporting interactive and interesting learning, stimulating practical experience, applying da'wah material in everyday life, interpreting holy books, and using AR in game-based da'wah (gamdication *)* .

In the aspect of AR's ability to visualize religious concepts, AR can help visualize complex and abstract religious concepts. For example, with AR, preachers can display images or 3D models representing historical places, events or religious figures. This can help mad'u to better understand the historical and religious context visually. They are easily able to visualize concepts and artifact symbols that are in accordance with the religious message of the da'i. The use of visual concentration is more interesting to use and academically has been shown to have a better learning impact than conventional learning by teachers (Bayu et al., 2019; Yusuf, 2019) .

In the second aspect, AR is able to provide an interactive atmosphere and attractions. This means that the use of AR can make the preaching experience more interactive and attract mad'u attention to listening to the material delivered by the preacher. Through AR devices, mad'u can actively

participate in learning by seeing, touching, or moving virtual objects, thereby increasing their involvement in da'wah materials. Interactive learning methods can bind and increase learning participation which is higher than conventional methods or listening to *video conferences* (Hazizah & Murni, 2019; Mejiro et al., 2018) . This also links the use of AR in da'wah to the third aspect, namely the use of AR as a simulation medium and practical experience in preaching. AR makes it possible to create realistic practical simulations and experiences without being in an actual physical location. With AR, mad'u can feel the experience of pilgrimage to holy places or religious historical places, even if they are in faraway places. Visualizations such as *virtual tours* in AR make learning media more enjoyable for mad'u to participate in da'wah.

AR is indeed a flexible technology. By implementing AR, preaching by da'i becomes more practical and can be imagined realistically by mad'u. This refers to the fourth function of AR as a medium of da'wah, namely AR is able to apply religious teachings in everyday life. AR can be used to show how religious teachings can be implemented in everyday life. For example, through AR, mad'u can see the procedures for prayer, zakat, or other worship interactively, making it easier to better understand and practice religious teachings. In addition, the AR function in embedding verses from the scriptures or interpreting verses from the scriptures is also easy to use. AR can be implemented to provide further interpretation or explanation of religious scriptures. Users can view scriptural texts against interactive backgrounds, and when hovering over the AR filter on certain verses, they can access additional interpretations, notes or context.

The application of AR is able to reach all sides and functions of da'wah which are often difficult for preachers to carry out. One of the advantages of AR, which is the last aspect of AR's function for da'wah, is its use as a game-based learning medium. AR can be used to create interactive and fun educational games based on religious teachings. With AR games, preaching can be integrated in an interesting way, which can help increase interest and motivation in studying religion. The use of AR in da'wah and Islamic religious education provides an innovative and interactive approach to convey religious messages to mad'u. This technology can help build deeper understanding and active involvement, thereby encouraging more people to better understand and practice religious teachings.

Deployment of Da'wah Functions through AR

The missionary function is crucial to spreading truth and wisdom, building social justice and social welfare, forming a noble Islamic character, overcoming deviations and extremism, improving the quality of spiritual life, and providing inspiration in shaping positive social change (Muhadi, 2019) . Therefore, the use of AR as a media for preaching certainly makes this goal efficient so that it is achieved for the prosperity of mankind in the technological development of society 5.0.

As a dissemination medium, AR can manage material by material in accordance with the concept of AR creators to spread da'wah material. Based on a review of research that forms AR as a learning medium, it is suggested that the use of AR in delivering da'wah material should be done with the concept of " *one content one message* " (Barus et al., 2022; Maha Putra. Angga, 2020; Susetya & Harjono, 2022) . This concept means the use of an AR concept for one category of message that the da'i wants to convey to mad'u. The concept of one message streamlines the visual and audio design in the AR filter so that it is easily accepted by mad'u. Messages are designed in short, short and clear categories, and are supported by graphic and audio elements that are directly proportional to the

message conveyed. The support of graphic and audio elements can increase audience interest in AR so that AR users will increase (Mavrodieva et al., 2019; Utami, 2018; Weng et al., 2013) .

Furthermore, AR is able to mediate the spread of da'wah carried out by preachers regarding da'wah messages. AR can be used to spread truth and wisdom by preachers. Da'wah aims to convey true and wise Islamic teachings to the community. Religious messages that are learned, understood, and practiced properly can bring positive changes in one's behavior, attitude, and outlook on life (Mazaya, 2022) . With da'wah, the truth can be spread widely and bring goodness to individuals and society. The use of AR mediates the dissemination of messages containing truth and wisdom regarding the Islamic religion to a wider audience than other types of media.

Da'wah through AR can spread messages that build justice and social welfare. Islamic teachings encourage concern for others, empowerment of the weak, and fair distribution of wealth. With the right preaching, social awareness can increase, and actions that support justice and prosperity can be implemented in everyday life (Al-Islamy, 2022) . By spreading messages that provide justice, da'wah can shape one's noble character and positive attitude towards individuals. Religious messages about honesty, patience, tolerance, and compassion can change human behavior and attitudes for the better (Yunihardi, 2022) . Along with improving character, society will become more moral and more responsible in dealing with various life problems.

Noble da'wah messages can increase deviation and extremism in society. By conveying religious teachings correctly and consistently, da'wah can prevent the spread of radical views which can lead to social instability and violence. Moderate and inclusive da'wah can invite individuals to respect diversity and live side by side in harmony (Muhadi, 2019) . In addition, da'wah helps improve the quality of one's spiritual life. Religious messages regarding relationship with God, the meaning of life, and the afterlife can provide inner peace and true happiness. Thus, individuals who have a good quality of spiritual life will tend to be more positive, resilient in facing challenges, and tend to have a more harmonious life.

By increasing positive social messages. Dakwah has the potential to inspire wider positive social change. Preachers and religious leaders who practice da'wah wisely and by example can become the driving force for change in society. They can encourage the application of good values, overcome social problems, and help people achieve success in this world and the hereafter.

Conclusion

Da'wah is one of the foundations and dissemination of Islamic religious material which is important for the continuity of spiritual life in society. Delivering da'wah through AR provides a new breakthrough for society in the era of communication 5.0. AR can provide a new atmosphere for preaching that is better than conventional explanations or explanations via *video conferences* . The application of AR is considered more interesting, fun, useful, interactive, and increases *user comfort* in listening to and interacting directly with da'wah messages. Da'wah by using AR can directly stimulate *the user* to experience visualization and audio of real religious concepts in a form that is easy to understand so as to increase knowledge, change opinions, and one's behavior towards da'wah material.

One content one message '' design which emphasizes the da'i to form the core of the message short, concise, and easy for mad'u to understand in every content he uploads. AR is able to mediate the

absorption of da'wah materials by users to increase virtue and wisdom, build justice and social welfare, prevent individuals from deviance and extremism, and increase a positive quality of life.

This study succeeded in revealing the use of *augmented reality* for the delivery of da'wah in the era of community communication 4.0. Furthermore, further research is expected to be able to provide further contributions to design, shape/create, and evaluate the practical implementation of the use of AR in delivering da'wah to mad'u.

References

Al-Islamy, L. (2022). *The Moral Value of Da'wah in the Novel Api Tauhid written by Habiburrohman El-Shirazy (Analysis of Discourse Theory of Teun A. Van Dijk in the Novel Api Tauhid by Habiburrahman El-Shirazy)* . UIN Sultan Maulana Hasanuddin Banten.

Andis Indrawan, IW, Saputra, KO, & Linawati, L. (2021). Augmented Reality as an Interactive Educational Media in the Covid-19 Pandemic. *Electrical Technology Scientific Magazine* , *20* (1), 61. https://doi.org/10.24843/mite.2021.v20i01.p07

Barus, O., Suliegna, E., Pangaribuan, JJ, & Jusin, J. (2022). Implementation of Augmented Reality Filters in Micro, Small and Medium Enterprises to Increase Sales. *Journal Metik* , *6* (2), 85–91. https://doi.org/10.47002/metik.v6i2.370

Bayu, GW, Eka Wahyuni, LG, & Arini, NW (2019). The Effectiveness of the Implementation of the Enjoyable Learning Strategy assisted by Audio Visual Media on the Beginning English Learning Outcomes of Elementary School Students. *Journal of Elementary School Science* , *3* (1), 44. https://doi.org/10.23887/jisd.v3i1.17178

Dewi, K., & Sahrina, A. (2021). The urgency of augmented reality as a medium of learning innovation in preserving culture. *Journal of Integration and Harmony of Innovative Social Sciences (JIHI3S)* , *1* (10), 1077–1089. https://doi.org/10.17977/um063v1i10p1077-1089

Enzai, NIM, Ahmad, N., Ghani, MAHA, Rais, SS, & Mohamed, S. (2020). Development of Augmented Reality (AR) for Innovative Teaching and Learning in Engineering Education. *Asian Journal of University Education* , *16* (4), 99–108. https://doi.org/10.24191/ajue.v16i4.11954

Fadli, MR (2021). Understand the design of qualitative research methods. *Humanika* , *21* (1), 33–54. https://doi.org/10.21831/hum.v21i1.38075

Gunawan, I. (2013). *Qualitative Research Methods Theory And Practice* . Script Earth.

Hagl, R., & Duane, A. (2018). *Exploring the Impact of Augmented Reality and Virtual Reality Technologies on Business Model Innovation in Technology Companies in Germany* . https://doi.org/10.5130/acis2018.ao

Aaron, S. (2021). Learning in Era 5.0. *Freedom to Learn in Welcoming the Age of Society 5.0* , 265–276.

Hazizah, N., & Murni, S. (2019). The Effectiveness of Fun Game Strategy in Improving Children's Recognition of Geometric Shapes. *Journal of Non-formal Education* , *5* (2), 197–202.

Kahfi, S., & Zuliana, V. (2022). Da'wah Management in the Era of Society 5.0. *ASWALALITA : Journal of Dakwah Management* , *1* (1), 20–40.

Khoiriyah, N., & Setiawan, A. (2022). *Development of the Instagram Filter Guess the Pillars of Islam Using the Spark AR Application as an Interactive Media for Learning Islamic Religious Education in Elementary Schools* . *4* (2). https://doi.org/10.23917/bppp.v4i2.22892

Great Son. Anga. (2020). Augmented Reality-Based Instagram Filter Design with SPARK AR FACE MASK ON NEW MEDIA COLLEGE ACCOUNTS. *Journal of Information Technology and Computers* , *6* (3), 391–397.

Mavrodieva, AV, Rachman, OK, & Harahap, VB (2019). The role of social media as a soft power tool in raising climate change. *Climate* , *7* (10), 1–15.

Mazaya, V. (2022). Smart Dakwah in the Era of Society 5.0 ; Virtual Da'i in New Media. *IQTIDA : Journal of Da'wah and Communication* , *2* (01), 32–46. https://doi.org/10.28918/iqtida.v2i01.5366

Mejiro, VD, Gunawan, PR, & Wianto, E. (2018). Designing Augmented Reality as an Educational Aid in History Lessons in Indonesia for Middle School Students. *Fiber Rupa Journal of Design* , *2* (2), 176. https://doi.org/10.28932/srjd.v2i2.899

Muhadi, U. (2019). Building the Effectiveness of Da'wah By Understanding the Psychology of Mad'u. *Journal of Da'wah and Communication* , *4* , 169. https://doi.org/10.29240/jdk.v4i2.1251

Muhammad Fauzan Sidik, & Vivianti. (2021). Application of Augmented Reality Technology in Android-Based Interactive Learning Media for Computer Network Installation Materials. *Thematic* , *8* (1), 14–28. https://doi.org/10.38204/tematik.v8i1.542

Porro, S., Spadoni, E., Bordegoni, M., & Carulli, M. (2022). Design of an Intrinsically Motivating AR Experience for Environmental Awareness. *Proceedings of the Design Society* , *2* , 1679–1688. https://doi.org/10.1017/pds.2022.170

Rakatiwi, Y., Halwati, U., & Nawawi, N. (2023). FYP Dakwah of Millennial Digital Creators Through Tiktok in the 5.0 Era. *Al Qalam: Religious and Social Scientific Journal* , *17* (3), 1583. https://doi.org/10.35931/aq.v17i3.2116

Saleh Rosmawita, Lestari Hertia, MER (2023). Development Of Learning Media Of Augmented Reality Application In Basic Building Construction Lesson. *Pencil Journal: Civil Engineering Education* , *12* , 12–21. https://doi.org/10.21009/jpensil.v12i1.32295

Santosa, EB, Hadi, B., Subiyantoro, S., Irmade, O., & Sukmawati, F. (2021). Augmented Reality for Student Learning Media: A Bibliometric Analysis and Visualization. *Indonesian Journal of Instructional Media and Models* , *3* (2), 47. https://doi.org/10.32585/ijimm.v3i2.2007

Satria, DA, Firmansyah, RB, & Basuki, AA (2023). Implementation of Augmented Reality Based on Instagram Filters in the Application of Learning Media About the Introduction to the Solar System. *Informatics Scientific Journal* .

Sugiyono. (2017). *Educational Research Methods Quantitative, Qualitative and R&D Approaches* . Alphabet.

Sukmawati, I., Purnomo, CA, Moniaga, C., & Ardhianto, P. (2022). Augmented Reality in Instagram Story Filters for Increasing Awareness through Learning Interactivity and Enjoyment. *Proceedings of the 4th International Conference on Arts and Design Education (ICADE 2021)* , *665* (August 2016), 229–233. https://doi.org/10.2991/assehr.k.220601.050

Susetya, BEF, & Harjono, N. (2022). Development of Augmented Reality-Based Instagram Filter Media as Science Learning Media to Improve Learning Outcomes of Elementary School Students. *Basicedu Journal* , *6* (6), 10056–10072. https://doi.org/10.31004/basicdu.v6i6.4228

Ternier, S., Klemke, R., Kalz, M., Ulzen, P., & Specht, M. (2012). AR Learn: Augmented reality meets augmented virtuality. *Journal of Cheminformatics - J Cheminf* , *18* .

Utami, S. (2018). The Use of Image Media to Increase Motivation and Learning Outcomes of Science in Class III Elementary School Students. *Primary: Journal of Elementary School Teacher Education* , *7* (1), 137. https://doi.org/10.33578/jpfkip.v7i1.5346

We are Social. (2022). *Digita 2021: Indonesia* . https://datareportal.com/reports/digital-2021-indonesia

Weng, E., Abdullah-Al-Jubair, M., Ahmad Zaidi Adruce, S., & Oon, YB (2013). Graphics, Audio-visuals and Interaction (GAI) based Handheld Augmented Reality System. *Procedia - Social and Behavioral Sciences* , *97* , 745–752. https://doi.org/10.1016/j.sbspro.2013.10.296

Yunihardi. (2022). Islamic Da'wah in the Era of Society 5.0: Opportunities and Challenges. *Journal of Da'wah and Communication* , *1* (1), 7. http://www.jstor.org/stable/43242160

Yusuf, M. (2019). The Effect of Application of Audio Visual Media and Comic Media on Increasing Student Learning Outcomes in Class X Man Pangkep Ski Learning. *Journal of Inspiring Education* , *8* (1), 156–177. https://journal3.uin-alauddin.ac.id/index.php/Inspiratif-Pendidikan/article/view/11334 .