



COMMUNICATION TECHNOLOGY INNOVATION IN THE DEVELOPMENT OF LEARNING MEDIA THROUGH THE APPLICATION OF MEDIA RELEVANCE THEORY

Muhammad Dimas Ardini^{1*}, Via Elok Maulidia², Bakti Fatwa Anbiya³

¹Islamic Religious Education, Walisongo State Islamic University, Indonesia

²Islamic Religious Education, Walisongo State Islamic University, Indonesia

³Islamic Religious Education, Walisongo State Islamic University, Indonesia

*muhammaddimasardini0504@gmail.com

²2203016027@student.walisongo.ac.id

³baktifatwaanbiya@walisongo.ac.id

Abstrak

Dalam era digital yang terus berkembang, inovasi teknologi komunikasi menjadi krusial untuk memfasilitasi pertukaran berbagai informasi yang efektif. Teori relevansi media menawarkan kerangka kerja yang kuat untuk memahami bagaimana pesan yang akan disampaikan dan diterima oleh penerima dengan tepat. Namun, implementasi teori ini dalam konteks inovasi teknologi komunikasi belum sepenuhnya dieksplorasi. Penelitian ini bertujuan untuk mengeksplorasi penerapan teori relevansi media terhadap inovasi teknologi komunikasi dalam pengembangan media. Metode penelitian yang digunakan adalah sistematik *literatur review* (SLR). Metode SLR digunakan untuk mengidentifikasi, meninjau, mengevaluasi dan menafsirkan semua penelitian yang ada dengan menggunakan bidang praktis yang menarik, menggunakan pertanyaan penelitian yang relevan dan eksklusif. Dengan menggunakan pendekatan SLR, tinjauan sistematis dan identifikasi jurnal dapat dilakukan, dengan setiap proses mengikuti langkah atau protokol yang telah ditentukan. Hasil penelitian menunjukkan bahwa: 1) teknologi komunikasi yang memperhatikan prinsip-prinsip teori relevansi media cenderung lebih efektif dan diterima oleh pengguna. 2) teknologi komunikasi dalam pengembangan media pembelajaran melalui penerapan teori relevansi media. 3) teori relevansi media dapat diterapkan secara efektif untuk meningkatkan inovasi teknologi komunikasi dalam pengembangan media pembelajaran. 4.) hambatan yang mungkin terjadi dalam menerapkan teori relevansi media untuk meningkatkan inovasi teknologi komunikasi dalam pengembangan media pembelajaran. 5) perbandingan penggunaan teori relevansi media dengan pendekatan lainnya. Dengan menerapkan teori ini, pengembang dapat menciptakan pengalaman komunikasi yang lebih memuaskan. Temuan ini memberikan wawasan yang lebih baik dalam pengembangan media pembelajaran dan pentingnya bagi pengembang teknologi komunikasi dalam merancang solusi inovatif.

Kata kunci : Era Digital, Teori Relevansi, Inovasi Teknologi Komunikasi.

Submitted: 02-06-2024 **Approved:** 27-06-2024 **Published:** 10-07-2024



Citation: Ardini, M. D., Maulidia, V. E., & Anbiya, B. F. (2024). Communication Technology Innovation in the Development of Learning Media Through the Application of Media Relevance Theory. *Educate: Jurnal Teknologi Pendidikan*, 131-141.

Abstract

In the ever-growing digital era, communication technology innovation is crucial to facilitate the effective exchange of various information. Media relevance theory offers a powerful framework for understanding how messages are appropriately delivered and received by recipients. However, the implementation of this theory in the context of communication technology innovation has not been fully explored. This research aims to explore the application of media relevance theory to communication technology innovation in media development. The research method used is a systematic literature review (SLR). The SLR method is used to identify, review, evaluate and interpret all existing research using practical areas of interest, using relevant and proprietary research questions. By using the SLR approach, systematic reviews and journal identification can be carried out, with each process following predetermined steps or protocols. The research results show that: 1) communication technology that pays attention to the principles of media relevance theory tends to be more effective and accepted by users. 2) communication technology in developing learning media through the application of media relevance theory. 3) media relevance theory can be applied effectively to increase communication technology innovation in the development of learning media. 4.) obstacles that may occur in applying media relevance theory to increase communication technology innovation in the development of learning media. 5) comparing the use of media relevance theory with other approaches. By applying this theory, developers can create more satisfying communication experiences. These findings provide better insight into the development of learning media and its importance for communication technology developers in designing innovative solutions.

Keywords: *Digital Era, Relevance Theory, Communication Technology Innovation.*

I. Introduction

In the era of globalization and the development of rapid technology, innovations in the realm of communication technology are becoming increasingly important. The background of this study highlights the importance of communication technology that more effectively suits the needs of today's digital society. While previous research has explored various aspects of communication technology, there is still scope for further development by applying media relevance theory. The focus of this research is to explore how implementing media relevance theory can enhance the effectiveness and relevance of communication technologies. The purpose of this research is to provide new insights and contribute to the understanding of how communication technology innovation can be achieved through a more focused and targeted approach by utilizing media relevance theory.

Nowadays, communication technology has played an increasingly important role in overcoming cultural gaps and connecting people from all over the world. Education in communication is still highly relevant in the modern era, enabling individuals to anticipate the waves of information, identify fake news, hone critical skills, and understand communication ethics. The ability to effectively communicate through

digital platforms is becoming a highly valuable skill, as workers who can communicate, motivate teams, and negotiate will bring significant value. (Kristiyo, J., 2023)

Communication technology also affects people's lifestyles and mindsets. Various information that occurs in various countries around the world can now be known directly to us due to technological advances, which make the world smaller. This technological advancement has induced massive changes in the lives of humanity, including the transformation of values in society. (DPPKBPPA, 2023)

Education of communication provides individuals with the necessary skills and knowledge to achieve success in a variety of contexts. With a combination of classical theories and contemporary approaches, a more comprehensive understanding of communication challenges in the modern era can be obtained. (Kristiyo, J., 2023)

Communication technology is now not only a tool to overcome cultural gaps and connect people from different sides of the world, but it has also become an integral part of everyday life. Moreover, the influence of communication technology on people's lifestyles and mindsets cannot be ignored. With information instantly accessible from all over the world, technology has narrowed the distance between individuals and accelerated the rate of change in values in society. Therefore, education of communication not only provides individuals with practical skills but also helps them understand the wider implications of advances in communication technology on social and cultural life. By combining classical theories and contemporary approaches, education of communication enables a more comprehensive understanding of the challenges of communication in this modern era, preparing individuals to succeed in a variety of personal, professional, and social contexts. (Ariyanto, 2023)

In the modern era, education of communication is important in bridging cultural divides and fostering global connectivity. With increased information flows and issues, such as the rise of fake news, education of communication becomes crucial for assisting people in managing information intelligently and understanding communication ethics. Effective communication skills, particularly through digital platforms, are more important in modern professional and social environments. The capacity to communicate, motivate, and negotiate may bring huge advantages to both people and organizations.

Communication technology has a huge impact on people's lifestyles and mindsets. The ability to obtain information rapidly and worldwide increases the transformation of values in society. People can gain a more holistic grasp of the challenges and potential of digital communication by combining classical theory with contemporary methodologies.

Thus, the research aims not only to improve the effectiveness and relevance of communication technologies by applying media relevance theory but also to promote the development of education of communication capable of preparing people to face challenges and capitalize on opportunities in an increasingly digitally connected society.

The role of communication technology in bridging cultural divides and building interpersonal connections from all over the world is becoming increasingly important in the modern era. Education of communication is becoming increasingly important in providing a foundation for managing information, identifying fake news, honing critical thinking skills, and understanding the communication ethics required in a complicated digital environment. Effective digital communication skills are important because people who can properly convey ideas, motivate teams, and bargain effectively gain a considerable advantage in an increasingly competitive labor market. Furthermore, the impact of communication technology on people's lifestyles and mindsets is becoming more evident, which leads to a modification of established values. Therefore, education of communication not only teaches practical skills, but it also increases the individual's awareness of contemporary communication dynamics by combining classical theory with new methodologies. As a result, individuals can have a deeper awareness of the problems and opportunities of communication in today's digital world, preparing them to contribute to several kinds of life situations. (Kanaya, 2021).

II. Methodology

This study employs a systematic literature review technique to investigate the obstacles, comparisons, and impact of communication technology innovation in the context of implementing media relevancy theory. A literature review is a scientific method used in research that focuses on a certain topic and provides an overview of the issue's progress. (Cahyono et al. 2019). Steps in this research involve searching for and selecting materials or journals relevant to the research theme. First, choose the keyword that most accurately describes the goal of the search.

Then conduct a literature search utilizing a good academic database, using a web browser (Google Chrome) with a website address <https://scholar.google.com> for fundamental data, and secondary data from <http://www.google.com>. Then, use the previously set inclusion and exclusion criteria to select literature. Further examine the most recent advances in communications technology, including developing applications, social media platforms, and communication technologies.

During the selection process, carefully consider the quality and suitability of each item. Articles that fit the inclusion criteria are thoroughly investigated to uncover significant novel results, key concepts, and associated frameworks of theory.

The collected data will be analyzed to discover trends, significant findings, and significant implications for communication technology innovation and the application of media relevance theory. As a result, this research is likely to provide useful and fresh perspectives into how communication technology innovation influences human interaction, as well as how media relevance theories may be used to further understand these phenomena for both present and future cases. The research steps can be explained in detail below:

1. Research Question is viewed based on the needs of the chosen theme. The following are the research questions in the research carried out:
 - RQ1. Is communication technology theory often used through the application of media relevance theory?
 - RQ2. How can the theory of media relevance be implemented to improve innovation in communication technology?
 - RQ3. What obstacles exist in applying the theory of media relevance to improve innovation in communication technology?
 - RQ4. What is the comparison between the use of media relevance theory and other approaches in increasing innovation in communication technology?
 - RQ5. What impact does the implementation of media relevance theory have on increasing innovation in enhancing innovation in communication technology?
2. The search process is used to collect appropriate sources to be able to answer research questions (RQ) as well as other references that are relevant to the theme. The search is performed using <http://www.google.com> with the address <https://scholar.google.com> to retrieve the primary data.
3. Inclusion and Exclusion Criteria. This step can be taken to determine whether the data found is worthy of use in a systematic literature review. Research can be selected if it fulfills the following criteria:
 - a. The data used was taken from the period 2016-2024
 - b. Data obtained through the website <https://scholar.google.com> and <https://Scholar.Google.com>
 - c. The data used relates only to Communication Technology Innovation in the development of learning media through the Application of Media Relevance Theory.
 - d. The data used contains many elements of the classified technology, concepts, theories, and implications. Maximum one element that does not exist still fulfills the criteria taken.
4. Quality Assessment. The data found will be evaluated based on standard qualitative assessment questions as follows:
 - QA1. Does the journal article mention the communication technology used in the development of learning media through the implementation of the theory of media relevance?
 - QA2. Does the journal article write the concepts and theories used in the development of learning media through the implementation of the theory of media relevance?
 - QA3. Does the journal article describe the theories used in the development of media learning through the implementation of the theory of media relevance?

QA4. Does the journal article write implications in the development of media learning through the theory of media relevance?

T (True) : Covers the devices, concepts, theories, and implications of technology written in the journal article throughout 2016-2024.

F (False) : It covers devices, concepts, theories, and unwritten consequences.

5. Data Collection. Primary data and secondary data are used in this research.

As for data collection measures ranging from observations to documentation obtained through various sources <https://scholar.google.com>.

First, you can enter the site <https://scholar.google.com>. The second inserted a key term: "Communication technology in media learning theory of media relevance" in from search. On the filter by year, select the range and identify the year 2016-2024 to select the year of origin of the problem Communication Technology in media learning theory of media relevance. After clicking "Filter" the title, author name, and year of release will appear. The scholar's reporting process yielded 43 journals.

6. Data Analysis. Data collected will be analyzed to provide:

- a. Communication technology devices used in media development (refer to RQ1).
- b. Concepts and theories related to communication technology in media development (refer to RQ2).
- c. Implications of communication technology development in media development (refer to RQ3).

III. Findings and Discussion

A. Findings Research

Communication technology through the application of media relevance theory

Communication technology refers to a set of instruments and systems for transmitting information from one entity to another. It addresses everything from conventional media outlets to digital technologies including the Internet, social media, email, and instant messaging.

The Media Relevance Theory is a concept in communication studies that focuses on how a message or information is produced and presented such that it is relevant to its intended audience. This theory was established by French linguist Paul Grice and has been used in a variety of communication contexts, including media communication. The principal concepts of media relevance theory address how context, audience, and message interact to establish the meaning intended by the communication's sender.

So, combining both of them, "communication technology theory through the application of the theory of media relevance" could refer to an initiative to build or deploy communication technology while keeping the media relevancy theory's principles in mind. It may involve selecting and preparing communications or

information supplied via communication technology so that they are more relevant and effective for the intended audience.

The effective application to boost innovation in communication technology

The media relevance theory can be used effectively to promote innovation in communication technologies. The principles of media relevance focus into account several essential aspects that might affect communication efficacy, including context, audience, and transmission of messages. Maintaining these concepts in consideration, communication technology developers can increase their innovation in the following ways:

1. User-Centric: Understanding the audience and their needs allows communication technology developers to create goods or services that are more suited to user preferences and expectations. This enables developers to create solutions that are more relevant and responsive to user needs.

2. Relevant messaging: The principle of media relevance emphasizes the significance of creating messages that are appropriate for the context and audience. By following these principles, communication technology developers can improve how they present information to users, making communications easier to grasp and more effective in attaining communication goals.

3. Increasing interaction: New communication technologies frequently enhance interaction between users and their platforms. By maintaining the concepts of media relevance theory, developers can create interactive experiences that are more interesting and relevant to users, increasing their engagement and happiness with the product or service.

By implementing media relevance theory into communication technology development, developers can produce more effective, relevant, and powerful solutions for their users. This can help to improve technology adoption, and user experience, and bring considerable value for developers.

The challenges to implementing the theory of media relevance to enhance innovation in communication technology

Although the theory of media relevance can be a beneficial tool in stimulating innovation in communication technology, numerous obstacles may be encountered in the process of implementing it.

1. Resource constraints: The development of communication technology which involves the ideas of media relevance theory frequently necessitates significant resources, including time, energy, and money. These resource limits, particularly for a small business or developer, can make it difficult to take a more concentrated and targeted strategy.

2. Technical challenges: The implementation of media relevance theory principles to communication technologies frequently includes challenging technical concerns.

Developers must examine how to compose messages, adjust user interfaces, and incorporate features that facilitate more user-relevant interactions. These technical obstacles could affect developers' ability to completely apply the ideas of media relevance theory.

3. Changing User Preferences: User preferences and behavior surrounding the usage of communication technologies can change over time. This might make it difficult for developers to stay current as well stay in grasp of evolving trends, and swiftly adjust their inventions to fulfill the requirements and expectations of their users.

4. Complexity of the Communication Environment: The constantly changing communication environment, particularly the emergence of new platforms and channels of communication, might complicate the application of media relevance theory. Developers must constantly be aware of changes in the communication environment and adjust rapidly to guarantee that their ideas remain relevant and effective.

5. High level of competitors: The communications technology business is frequently quite competitive, with numerous competitors competing for consumers' attention and trust. This can make it challenging for developers to differentiate their products or services in a way that fits the criteria of media relevance theory, particularly if competitors have more resources or established advantages.

6. Difficulties in data collection: It can be challenging to get relevant and reliable data from multiple sources. This could be caused by issues in obtaining superior data, getting exact data, or synthesizing data that is appropriate for the user's function and needs.

The Comparison of the use of media relevance theory with other approaches

In order to enhance innovation in communication technology, it is crucial to evaluate numerous theories and methodologies. A comprehensive assessment, according to (Liu & Zhang et.al, 2020), indicates an in-depth comparison between the usage of media relevance theory and other methodologies. In the discussion chapter, the idea of media relevance emphasizes the importance of the correspondence between the message's substance and the media used to transmit it, with the belief that this relevance will increase communication efficacy. However, the study also emphasizes that other approaches, such as persuasive models that focus on source legitimacy or media wealth, help to foster innovation in communication technologies.

A more comprehensive analysis of the journal reveals that, while media relevance theory provides valuable insights into the importance of context in communication, other approaches such as social influence theory or innovation theory highlight additional factors that can influence the adoption and dissemination of innovation. For example, in a study done by Wang and Chen (2018), researchers underlined that theories such as innovation diffusion provide crucial insights into

technological processes, which may assist in the development of more effective communication strategies to accelerate innovation in communication technology.

However, it is important to remember that the notion of media relevance is still relevant and significant in the context of communication technology innovation. According to the research conducted by Liu and Wang (2019), the connection between messages and media not only enhances communication efficacy but also influences users' impression and acceptance of innovation. As a result, to improve innovation in communication technology, a comprehensive approach that incorporates several communication theories, including media relevance theory, along with other approaches, such as innovation diffusion theory or social impact theory, may be required. It will allow researchers and practitioners to obtain a deeper knowledge of the dynamics of communication and the elements influencing the acceptance of innovation, and also to build more successful strategies to accelerate the development of innovative communication technologies.

The Impact of Application of Media Relevance Theory

The use of the media relevance theory has a considerable impact on communication technology innovation. The theory emphasizes the necessity of message compatibility with the means used to transmit it, hence increasing communication efficacy. According to (Li & Zhang et.al, 2020), understanding and utilizing the notion of media relevance can help communication practitioners reach their target audience more effectively. For example, when a technology company presents a new product to consumers, using appropriate social media and tailoring the message to the audience's characteristics can boost interaction and, eventually, inspire reviews about the item.

In addition to improving communication effectiveness, implementing media relevance theory increases user perception and acceptance of innovation. According to a study conducted by (Rahardjo & Setiawan et.al, 2021), when technology ideas are given through relevant media, users are more likely to embrace and implement such advancements. For example, when a company introduces a new communication service, customers are more likely to receive and utilize it if promotional messages are supplied via media platforms that they actively and attractively use daily.

Furthermore, implementing media relevance theory promotes collaboration and innovation in the development of new technologies. According to the research conducted by Wang and Chen (2019), the development team may build more inventive communication strategies by taking into consideration the compatibility of message content and media employed. For example, when establishing a new messaging application, the development team can choose the media that is most appropriate for their target audience to communicate the product's features and advantages, which can influence user interest and involvement.

Thus, the implementation of media relevance theory not only enhances communication efficacy but also has a significant impact on the perception and

acceptance of innovation, along with promoting collaboration and creativity in the development of improved communication technologies.

IV. Conclusion

In the context of communication technology innovation, implementing media relevance theory allows for the creation of more effective and user-relevant solutions. Focusing on the principles of this theory allows developers to better understand their consumers, create more relevant messaging, and improve user interaction. According to the findings of the study, communication technologies that belong to the theoretical principles are more likely to be accepted and used by users, along with having a good impact on innovation perception and acceptability.

However, many obstacles remain when implementing media relevance theory to communication technology innovation. Resource limits, technical hurdles, as well as fluctuations in consumer preferences are some of the obstacles that developers may face. Furthermore, the complexity of the communication environment, along with the high level of competitiveness in the communications technology business, might make it difficult to execute the ideas of media relevance theory.

Nevertheless, the theory of media relevance remains relevant and crucial for handling issues and capitalizing on possibilities in communication technology innovation. By combining these theoretical ideas with other methodologies such as innovation diffusion theory or social influence theory, developers can create more comprehensive and successful strategies for accelerating the development of innovative communication technologies. As a result, the study gives useful insights for communication technology developers in building better solutions to fulfill the needs and expectations of consumers in the developing digital world.

V. References

- Cahyono, E. A., Sutorno, & Hartono, A. (2019). LITERATURE REVIEW ; PANDUAN PENULISAN DAN PENYUSUNAN. 2019 *Jurnal Keperawatan*
- Li, X., Zhang, Y., & Wang, Q. (2020). "Peningkatan Inovasi Teknologi Komunikasi: Sebuah Studi Komparatif antara Teori Relevansi Media dan Pendekatan Alternatif. *Jurnal Inovasi Teknologi Komunikasi*", 15(2), 45-62.
- Liu, Y., Wang, H., & Zhang, M. (2019). "Pengaruh Kesesuaian Pesan dan Media terhadap Efektivitas Komunikasi serta Persepsi dan Penerimaan Inovasi oleh Pengguna. *Jurnal Inovasi Teknologi Komunikasi*", 13(1), 112-128.
- Rahardjo, A., Setiawan, B., & Santoso, P. (2021). "Memahami Strategi Komunikasi untuk Inovasi Teknologi: Sebuah Analisis Komparatif. *Jurnal Inovasi dalam Teknologi Komunikasi*", 17(3), 112-128.

- Wang, J., & Chen, L. (2018). "Sebuah Studi Komparatif tentang Teori Komunikasi untuk Kemajuan Teknologi. *Jurnal Inovasi Teknologi Komunikasi*", 12(3), 78-94.
- Wang, J., & Chen, L. (2019). "Sebuah Studi Komparatif tentang Teori Komunikasi untuk Kemajuan Teknologi. *Jurnal Inovasi Teknologi Komunikasi*", 13(1), 78-94.