

# Jurnal Penelitian Pendidikan IPA

http://jppipa.unram.ac.id/index.php/jppipa/index



# Challenges and Opportunities in Using Social Media to Build Digital Literacy in Public Education: A Review-Based Perspective

Evimawati Harefa¹\*, Alexius Poto Obe¹, Bartolomeus Sihite¹, Megawati Naibaho¹, Ester Fosumange Laia¹, Marlinus Gaurifa¹, Raimon Rozaman Bawamenewi¹, Agnes Taratangbuk¹, Rikki Makkirap Simamora¹, Iman Suryani Ndraha¹, Nicolas Febriso Naibaho¹

Received: February 2, 2025 Revised: April 19, 2025 Accepted: May 25, 2025 Published: May 31, 2025

Corresponding Author: Evimawati Harefa harefaevi@stpdianmandala.ac.id

DOI: 10.29303/jppipa.v11i5.11016

© 2025 The Authors. This open access article is distributed under a (CC-BY License)



Abstract: The advancement of technology that continues to develop today can help accelerate and simplify human work. Technological progress facilitates communication without limitations of space and time. Easy internet access makes it easier to obtain various types of information. However, the vast amount of information available online can also lead to the spread of hoaxes and misinformation. This makes digital literacy crucial for the public to distinguish between valid and invalid information. Social media, as an easily accessible form of information technology, can serve as an educational medium for promoting digital literacy. Social media as a model for digital literacy can also be applied in science education by providing students with worksheets and asking them to review information found on social media related to specific science topics. This approach not only strengthens students' digital literacy skills but also deepens their understanding of scientific concepts by connecting them with real-world issues and current information trends. The method used is descriptive qualitative, with data derived from previous research conducted over the past ten years. The results show that digital literacy is essential for communities in utilizing technology effectively. A high level of digital literacy enables individuals to differentiate between accurate and inaccurate information. The opportunities for using social media in digital literacy education include enhanced collaborative communication, engagement and accessibility, empowerment, lifelong learning, and the promotion of innovative educational practices. The challenges, however, include limited access and resource constraints, barriers to digital literacy, privacy and security concerns, and ethical and professional considerations. These findings support the strategic integration of social media into public education systems as a tool to enhance both scientific and digital literacy, especially among youth.

Keywords: Digital literacy; Social media; Public education

#### Introduction

The advancement of technology that continues to develop today can help speed up and simplify human work (Nair & Maria Sabastin, 2019). This technological advancement can increase the efficiency of human work so that it is easy to manage. Technological innovation has revolutionized heavy work that requires costs and

time into an automatic system that can run itself so that it is more efficient in terms of time and cost. This can certainly increase work productivity (Berrell, 2020). Technological advances can also help in the process of human communication. Technology has become a mediator in human communication, from printing machines to internet networks. The digital changes that are currently occurring allow for digital communication

#### How to Cite:

<sup>&</sup>lt;sup>1</sup> Pendidikan keagamaan katolik, STP Dian Mandala Gunungsitoli, Indonesia

that can speed up the communication process and change the way humans interact in their environment (Entschew, 2021). Communication that used to be via letter and telephone has now changed to a cellphone. This cellphone can not only send written messages but can also carry out two-way communication in real-time via voice calls or even video calls (Mindel et al., 2024).

Social media is an online media that can help make it easier for users to communicate with others without any distance and time constraints. This social media has various features that can not only be used as a communication tool but also as a digital learning medium (Martoredjo, 2023). Various information can now be easily accessed through social media or via the internet; for example, to follow information about politics, society, and or even education, someone only needs to type in certain keywords, and the information will appear, not only one piece of information but a lot of information will be found from various sources (Šímová et al., 2021). Humans, both young and old, widely use social media because it allows users to not only consume information but also participate in creating, commenting on, and distributing various content in various formats, both text, images, audio, or video (Prayitno et al., 2021).

Digital literacy is also related to scientific literacy, where both of these literacies require critical thinking, problem solving, and the ability to analyze and interpret information. Digital literacy skills, such as evaluating information and using digital tools are essential for conducting scientific research and understanding scientific data (Son & Ha, 2025). Digital literacy can empower individuals to access and engage with information, participate scientific in discussions, and make decisions based on scientific evidence (Dašić et al., 2024; Demirbag & Bahcivan, 2021). This is important in a digital world where information is abundant and not always reliable. Digital literacy skills can be developed through student worksheets to analyze various information from social media on certain learning topics. This approach not only strengthens students' digital literacy skills but also deepens their understanding of scientific concepts by connecting them with real-world issues and current information trends (Demirbag & Bahcivan, 2021; Effendi et al., 2021). The implementation of scientific literacy in schools is in line with the four pillars of universal education formulated by UNESCO there are learning to know, learning to do, learning to be and learning to live.

However, in addition to the advantages of social media, there are certain challenges in using social media. The large amount of information on social media can cause the spread of hoax news or misinformation. This makes it necessary to have education related to digital literature to prevent the spread of hoax information or

misinformation so that people will use social media more productively and not easily believe or be influenced by hoax news and misinformation. Not only related to the nature of responding to hoax news and misinformation, but also to provide education so as not to spread hoax news or misinformation to others. So, the title of this study is " Challenges and Opportunities in the Use of Social Media in Building Digital Literacy as Public Education".

#### Method

The research method used in this study is qualitative, with a systematic literature review approach. This method is chosen because it allows the researcher to explore and synthesize various perspectives and findings from previous studies in order to identify patterns, themes, and knowledge gaps related to digital literacy and social media. A review of existing literature is essential to provide a comprehensive understanding of how the advantages of digital literacy are perceived and utilized in the context of social media across different populations and time periods. This approach also helps map the trajectory of research development and technological adaptation over the last decade.

Research data were obtained through several previous articles with similar research themes. Data collection was conducted with the help of Publish or Perish software by entering the keywords "digital literacy" and "social media" in the *title words* column, and the word "advantages" in the *keyword* column. The inclusion criteria in this study were: articles must be open access, published between 2015 and 2025, and must discuss the topics of digital literacy and social media. The time range of ten years was selected to capture recent developments and trends in technology use by society. The exclusion criteria were: articles that are not open access, published before 2015, or that do not discuss both digital literacy and social media.

The articles obtained were then analyzed qualitatively using a thematic analysis model. This involves reading and re-reading the articles to identify recurring patterns, themes, and constructs that emerge across different studies. Thematic analysis was chosen because it is flexible and well-suited to identifying meanings and insights from qualitative data, particularly in studies that synthesize findings from diverse sources. The findings were then described descriptively to highlight key insights, recurring advantages, and contextual factors influencing digital literacy through social media.

#### Result

The results of the analysis with Publish or Perish produced 23 articles. Of the 23 articles, several articles were included because they did not meet the inclusion criteria. Namely, 4 articles were not open access, and 2 articles did not discuss digital literacy and social media, leaving 17 articles to be analyzed. The results of the analysis of the 17 articles are as follows:

Table 1. Results of qualitative analysis of articles.

Author	Regency	Results
(Sarasvati & Siswadi, 2025)	Klaten	Digital literacy is important to filter information and content on social media. Digital literacy can prevent and overcome the spread of hoax news and provide education related to the operation and use of efficient and effective technological devices.
(Fatihah & Wicaksono, 2025)	Tulungagung	Digital literacy plays a role in shaping students' understanding of the limits of individuals who have a healthy mentality. The obstacle in digital literacy is the large amount of information that comes from social media, which even contains toxic positivity.
(Hidayah, 2024)	Tulungagung	Good digital literacy will also have a positive impact. For example, MSMEs can use social media to promote products and communicate with buyers.
(Falenchia & Sumardjijati, 2023)	East Java	Every individual needs digital literacy skills so that they do not misuse social media and understand the ethics of using social media.
(Sari & Prasetya, 2022)	Jakarta	Digital literacy among students in using social media at PKP JIS High School is good, as proven by students' ability to use social media.
(Husna et al., 2023)	North Sumatra	Socialization activities related to digital literacy are effective in increasing understanding of the use of digital technology in social media, namely in analyzing hoax information.
(Kurnia & Cempaka, 2023)	Bekasi	Socialization activities through the media "Isi Piringku" can form students who are wise in using social media and smart in utilizing mass media and can explain the obstacles and problems with social media content.
(Zonyfar et al., 2022)	Karawang	Good digital literacy will increase a deep understanding of good ethics in communicating on social media. Literacy is not only needed on social media but also in communicating in the surrounding environment.
(Ikrom & Nugraha, 2024)	Bandung	Providing interesting content on social media can increase public literacy because if the content is interesting, many people will see it.
(Stefany, Stella, Nurbani, 2017)	Medan	Digital literacy is related to children's self-disclosure on social media. Students understand that opening themselves up on social media influences them, so it is important for them to understand the features available on social media.
(Mona & Gasa, 2020)	Jakarta	Digital literacy skills are needed to filter out the negative things from social media freedom as well as maximize social media space to get positive things and more benefits.
(Meilinda et al., 2020)	South Sumatra	Socialization activities regarding digital literacy need to be carried out among young people to encourage and influence their perceptions of social media consumption and change their beliefs and behavior.
(Ajib et al., 2024)	Subang	Socialization of digital literacy regarding managing social media and the dangers of hoax news on social media has a positive impact on students.
(Huda et al., 2024)	Pasuruan	Digital literacy assistance for the community has the potential to increase community knowledge, skills, and empowerment in the use of digital technology.
(Subakti, 2022)	Holy	Social media as a medium for preaching requires mastery of digital literacy in its applications in order to make social media the right medium for preaching
(Wono et al., 2020)	Surabaya	Good digital literacy will increase brand awareness, positively impact strategic decision-making, and intensify the relationship between the company and customers.
(Muannas & Mansyur, 2020)	Makassar	Digital literacy to combat hate speech does not just require using the critical consuming, functional presuming, and critical presuming models; it also needs to add moral value. The moral value model includes two indicators: ethical behavior and motivational skills.

#### Discussion

Digital literacy is the skill of learning, searching, and utilizing all media in various forms. Through this

digital literacy, users become proficient in using it. Digital literacy does not only involve skills in using technology, communication, and information devices themselves. However, users must have the ability to socialize wisely, have a critical and deeper attitude, and inspire the general public to express opinions wisely and responsibly (Nugraha, 2022).

Digital literacy is able to create various existing orders in society with creative and critical mindsets and views. Society is not easily fooled by provocative issues that can become victims of false information or hoaxes or victims of digital-based fraud. Society should be able to understand every digital content whose credibility and quality are guaranteed. Thus, the social and cultural life of society will be more conducive and safer. Achievement in building digital literacy is one indicator of success in various fields of education and culture (Suliyanta, 2020). The results of the analysis in Table 1 show that digital literacy is very much needed for students or the community to increase the effectiveness of the use of social media technology. Social media that can connect with many people can be used as a medium for promoting MSME products, a medium for disseminating spiritual information, and a medium for learning (Hidayah, 2024; Ikrom & Nugraha, 2024; Meilinda et al., 2020). In digital literacy, the main element is the ability to develop a mindset that allows individuals to filter and manage information wisely and emphasizes that individuals who have good digital literacy can communicate effectively and responsibly and have the ability to innovate. Therefore, the younger generation must be able to adopt elements of digital literacy to train themselves to become a generation that thinks critically, is selective about information, utilizes the internet well, and creates an innovation that can improve digital literacy (Putri et al., 2024).

The ever-evolving digital technology creates opportunities for the application of social media as a medium for digital literacy for the community. Here are some opportunities for the use of social media in building digital literacy as science education for the community:

# 1. Improved communication and collaboration

Social media can significantly enhance communication, resource accessibility, and community building, transforming educational environments into dynamic and interactive spaces (Gazi et al., 2024; Madaki et al., 2025). It can also facilitate critical dialogue, reflection, and access to multiple perspectives, thereby enriching the learning experience (Fournier-Sylvester, 2020). This supports the science learning process because social media can be a means to access the latest scientific information, discuss science issues in everyday life, and build a community of learners who actively support each other. In addition, students can develop digital science literacy through the practice of evaluating the truth of scientific information circulating on social media, such as claims about health, the environment,

and technology. This interaction encourages critical and reflective thinking skills, which are an important part of the goals of science education. By using social media wisely, teachers and students can expand the classroom into an open dialogue space that is relevant to the real world and contextual.

# 2. Increased engagement and accessibility

Social media can help facilitate the education process and make learning more interesting because it provides learning materials tailored to interests and needs (Martoredjo, 2023; Zamir et al., 2024). Platforms that can be used as educational media for the community are Facebook, WhatsApp, Instagram, TikTok, and YouTube (Samala et al., 2024). To apply this model, teachers can provide students with worksheets to analyze information about the science learning topic being studied on social media, then students are asked to find valid information as discussion material in class.

# 3. Empowerment and lifelong learning

Digital literacy enables people to create, access, and share knowledge, leading to economic growth and improved quality of life (Urquizo et al., 2020). Digital media technologies and programs can help people who have initiatives to develop various forms of literacy and critical skills as lifelong learning (Arndt & Davis, 2010). Digital literacy plays an important role in helping students access valid scientific information, understand complex concepts through interactive digital media, and develop critical thinking and problem-solving skills. The use of digital technology allows science learning to be more contextual and relevant to real life, such as through experimental simulations, visualization of scientific phenomena, or online collaboration in science projects. Thus, digital literacy not only enriches the science learning experience but also strengthens students' readiness to become lifelong learners who are able to face the challenges of a technology in the world.

# 4. Innovative educational practices

Ever-evolving technology can be used as an innovative, engaging learning medium and can enhance the development of new pedagogical strategies (Willis & Exley, 2022). New technologies such as VR and AI can help create innovative learning ideas, thereby increasing students' interest in learning and helping them understand the concept of the material (Singha, 2023). The use of technology in science learning can help students understand and increase their interest in learning related to the material being discussed. The use of technology such as VR and AI can be used as a science learning medium to demonstrate or visualize something.

Meanwhile, the challenges of using social media in building digital literacy as science education for the community are as follows:

# 1. Access limitations and resource constraints

Not all people understand technology, this causes limitations in society to access information and digital platforms due to inadequate ICT infrastructure and limited resources (Warnars & Mursitama, 2024). Unequal access to technology and internet connectivity can hinder the effectiveness of social media in educational environments (Madaki et al., 2025).

# 2. Barriers to digital literacy

There are significant barriers to digital literacy, including educators' competencies, skills, and motivation to use digital technologies effectively (Urquizo et al., 2020). The lack of digital literacy in the community can have a negative impact. Namely, it can lead to the spread of misinformation (Zamir et al., 2024).

### 3. Privacy and religious concerns

Privacy issues, identity theft, and exposure to inappropriate content are major concerns when integrating social media into educational contexts (Madaki et al., 2025; Samala et al., 2024). Cyberbullying and digital stress, especially among adolescents, are also additional challenges that need to be addressed and addressed (De Groote & Van Ouytsel, 2022).

# 4. Ethical and professional considerations

The integration of social media in education requires careful consideration of ethics, professionalism, and the quality of digital content (Brazil et al., 2023). Some recommendations that can be made in implementing social media as a medium for building digital literacy in society are as follows:

- 1. Establishing clear social media policies and guidelines can help reduce privacy and security concerns (Madaki et al., 2025).
- 2. Regular training and capacity building for communities on digital literacy and responsible use of social media (Madaki et al., 2025; Urquizo et al., 2020).
- 3. Strategic content management, namely by creating and managing educational content strategically, can increase the effectiveness of social media in education (Madaki et al., 2025)
- Continuous monitoring and evaluation of social media integration in educational environments can help address emerging challenges and help improve outcomes (Madaki et al., 2025).

Social media opens up opportunities for young Catholics to form virtual communities that transcend geographical boundaries. These communities are not only a place to share spiritual experiences but also to discuss challenges of daily life, such as relationships, studies, and work (Vian, 2013). One such community can serve as a case study for exploring how digital literacy principles are applied in real contexts, including their potential relevance to science education. For instance, the digital literacy practices developed within Catholic youth communities-such as awareness of digital impact, ethical behavior online, and critical thinking – can also be essential in navigating scientific information on social media. In the context of science education, these values help students evaluate scientific claims (e.g., about climate change, vaccines, or health remedies) with ethical and critical perspectives. This case shows that spiritual communities can play a role in strengthening digital literacy skills that are transferable and beneficial for learning science. Integrating digital ethics, critical analysis, and active participation into science learning encourages students to become responsible digital citizens who are scientifically literate and socially aware. The following steps, adopted by Catholic youth communities to build effective digital engagement, can be considered as a model for educational communities, including science education:

- 1. Defining community goals to focus on relevant scientific or environmental issues
- 2. Choosing platforms that support interactive science learning (e.g., discussion forums, learning apps)
- 3. Creating engaging content such as science explainer videos, infographics, and discussion prompts
- 4. Encouraging student interaction and collaboration
- 5. Maintaining respectful and ethical digital dialogue in science discussions

The five key principles of digital literacy found in Catholic digital communities: awareness, ethics, security, critical thinking, and active participation can serve as a foundation for digital literacy in science education, enabling students to navigate and contribute meaningfully to the digital information landscape.

### Conclusion

Digital literacy refers to the ability to access, assess, understand, and use information intelligently and responsibly in a digital environment. Digital literacy also includes the ability to search for appropriate information, interact ethically, and be aware of and manage the influence of technology on personal and social life. With good mastery of digital literacy, individuals can become more critical, wise, and responsible internet users and are able to avoid the spread of false information and dangers. In the context of science education, this integration fosters critical thinking, inquiry-based learning, and the ability to evaluate scientific information—thus cultivating a

generation that is not only technologically proficient but also scientifically literate. The opportunities for using social media as a medium for digital literacy education are to increase collaborative communication, engagement and accessibility, empowerment, and lifelong learning, and innovative educational practices. Then, the challenges are limited access and resource constraints, digital literacy barriers, privacy and security concerns, and ethical and professional considerations. This study recommends educators and policymakers to integrate social media strategies in science education programs to enhance critical thinking and information literacy.

#### **Funding**

This research received no external funding

#### **Conflicts of Interest**

The authors declare no conflict of interest.

#### **Author Contributions**

Conceptualization, E.H. and A.P.O.; methodology, B.S. and M.N; software, E.F.L.; validation, E.H, and M.G.; formal analysis, R.R.B. and A.T.; resources, R.M.S.; writing—review and editing, I.S.N., and N.F.N. All authors have read and agreed to the published version of the manuscript.

#### References

- Ajib, Nurlaela, E., Farhani, S., & Khiarotunnisa. (2024). Pemberdayaan Pelajar Melalui Literasi Digital Guna Mengantisipasi Berita Hoax di Media Sosial. *Archive: Jurnal Pengabdian Kepada Masyarakat*, 4(1), 59–65.
- Arndt, A. E., & Davis, K. C. (2010). Multiple means: Identifying literacy learning experiences of at-risk youth in community informatics contexts. In T. A., C. N., B. J., L. W., & W. F. (Eds.), ICSIT 2010 International Conference on Society and Information Technologies, Proceedings (pp. 228–230). International Institute of Informatics and Systemics, IIIS.
  - https://www.scopus.com/inward/record.uri?eid =2-s2.0-
  - 85032985980&partnerID=40&md5=4c6c909c05c64f 24c8d9e04bfd60da92
- Berrell, M. (2020). Humans need not apply: Artificial intelligence, robotics, machine learning, and the future of work. In *Anywhere Working and the Future of Work* (pp. 60–85). IGI Global. https://doi.org/10.4018/978-1-7998-4159-3.ch003
- Brazil, V., Stokes-Parish, J., & Spurr, J. (2023). Role of Social Media in Health Professions Education. In *Clinical Education for the Health Professions: Theory and Practice* (pp. 765–776). Springer Nature.

- https://doi.org/10.1007/978-981-15-3344-0 119
- De Groote, D., & Van Ouytsel, J. (2022). Digital stress within early adolescents' friendships A focus group study from Belgium. *Telematics and Informatics*, 73. https://doi.org/10.1016/j.tele.2022.101877
- Entschew, E. M. (2021). Acceleration through Digital Communication: Theorizing on a Perceived Lack of Time. *Humanistic Management Journal*, *6*(2), 273–287. https://doi.org/10.1007/s41463-020-00103-9
- Falenchia, M., & Sumardjijati, S. (2023). Literasi Digital Remaja dalam Permainan Roleplay di Media Sosial Twitter. *JIIP - Jurnal Ilmiah Ilmu Pendidikan*, 6(6), 4064–4072. https://doi.org/10.54371/jiip.v6i6.1585
- Fatihah, S. N., & Wicaksono, M. F. (2025). Peran Literasi Digital Terhadap Kebutuhan Informasi Kesehatan Mental Pengguna Media Sosial Oleh Mahasiswa Fakultas Ushuluddin Adab Dan Dakwah The Role of Digital Literacy in the Mental Health Information Needs of Social Media Users by Students of the Facu. Jurnal Ilmiah Ilmu Perpustakaan (Librari), 1(1), 1–11.
- Fournier-Sylvester, N. (2020). Finding ways to connect: Potential role of social media in peace education. In *Palgrave Studies in Educational Media* (pp. 41–59). Palgrave Macmillan. https://doi.org/10.1007/978-3-030-50949-1 3
- Gazi, M. A. I., Rahaman, M. A., Rabbi, M. F., Masum, M., Nabi, M. N., & Senathirajah, A. R. B. S. (2024). The Role of Social Media in Enhancing Communication among Individuals: Prospects and Problems. *Environment and Social Psychology*, 9(11). https://doi.org/10.59429/esp.v9i11.2979
- Hidayah, N. (2024). Pemanfaatan Media Sosial Sebagai Media Literasi Digital dalam Pemasaran Produk UMKM Gendang Jimbe. *JAPRI (Jurnal Perpustakaan Dan Informasi)*, 6(1), 15–23.
- Huda, M., Maulana, I., Uriva C, M., & Hidayati, L. (2024). Pemanfaatan literasi digital melalui pegelolaan website dan media sosial desa menuju desa go digital. *Jurnal Inovasi Hasil Pengabdian Masyarakat* (*JIPEMAS*), 7(1), 92–102. https://doi.org/10.33474/jipemas.v7i1.21030
- Husna, M. F., Novita, T. R., & Saragih, A. (2023). Sosialisasi Literasi Teknologi Digital untuk Menghindari Hoaks pada Media Sosial di Yayasan Pendidikan Hafnan Simbolon Kecamatan Patumbak Kabupaten Deli .... Amaliah: Jurnal Pengabdian Kepada Masyarakat, 7(1), 112–121. https://www.jurnal
  - lp2m.umnaw.ac.id/index.php/AJPKM/article/view/2120%0Ahttps://www.jurnal-
  - lp2m.umnaw.ac.id/index.php/AJPKM/article/download/2120/1313
- Ikrom, Z., & Nugraha, M. F. (2024). Literasi Dakwah

- Digital pada Akun Media Sosial Instagram Nahdlatul Ulama @nuonline\_id. *Meyarsa: Jurnal Ilmu Komunikasi Dan Dakwah*, *5*(1), 59–70.
- Kurnia, A., & Cempaka, L. (2023). Literasi Digital Bagi Pelajar: Bijak Bermedia Sosial Dan Cerdas Memanfaatkan Media Massa (Studi Kasus Konten Makanan Di Smk Merah Putih Bekasi). *Jurnal Pengabdian Masyarakat Multidisiplin*, 6(3), 287–299. https://doi.org/10.36341/jpm.v6i3.3089
- Kurnianingsih, Q., Nurhasanah, A., & Hakim, Z. R. (2020). Penerapan Pendekatan Pembelajaran SAVI terhadap Kemampuan Berpikir Kritis Siswa pada Materi IPS di Kelas V SD. *Jurnal PGSD: Jurnal Ilmiah Pendidikan Guru Sekolah Dasar*, 13(2), 129–139. https://doi.org/10.33369/pgsd.13.2.129-139
- Madaki, A. S., Abdullah, A. A. R. A., & Musleh, M. M. M. (2025). The Role of Social Media Networks in Enhancing School Libraries. In *Studies in Computational Intelligence* (Vol. 1180, pp. 3–20). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-031-80334-5\_1
- Martoredjo, N. T. (2023). Social media as a learning tool in the digital age: A review. In S. G. A.A. (Ed.), *Procedia Computer Science* (Vol. 227, pp. 534–539). Elsevier B.V. https://doi.org/10.1016/j.procs.2023.10.555
- Meilinda, N., Malinda, F., & Aisyah, S. M. (2020). Literasi Digital Pada Remaja Digital (Sosialisasi Pemanfaatan Media Sosial Bagi Pelajar Sekolah Menengah Atas). *Jurnal Abdimas Mandiri*, 4(1), 62–69. https://doi.org/10.36982/jam.v4i1.1047
- Mindel, V., Overstreet, R. E., Sternberg, H., Mathiassen, L., & Phillips, N. (2024). Digital activism to achieve meaningful institutional change: A bricolage of crowdsourcing, social media, and data analytics. *Research Policy*, 53(3). https://doi.org/10.1016/j.respol.2023.104951
- Mona, E. N. F., & Gasa, F. M. (2020). Literasi Media: Sosial Media Sebagai "Front Stage" Baru Personal Image Generasi Digital Native. *IURNAL* Research SIMBOLIKA: and Learning in Communication 6(2), 107-120. Study, https://doi.org/10.31289/simbollika.v6i2.3650
- Muannas, & Mansyur, M. (2020). Model Literasi Digital untuk Melawan Ujaran Kebencian di Media Sosial Digital Literacy Model to Counter Hate Speech on Social Media. *Jurnal Ilmu Pengetahuan Dan Teknologi Komunikasi*, 22(2), 125–142. http://dx.doi.org/10.33164/iptekkom.22.2.2020.12 5-142
- Nair, V. K., & Maria Sabastin, S. (2019). A study on awareness of Block chain technology among human resources executives in India. *Proceedings of the International Conference on Industrial Engineering and*

- Operations Management, 2019(MAR), 3638–3639. https://www.scopus.com/inward/record.uri?eid =2-s2.0-
- 85067265520&partnerID=40&md5=6d8c423825189 bd4fcaa2f118403e6f7
- Nugraha. (2022). Literasi Digital dan Pembelajaran Sastra Berpaut Literasi Digital di Tingkat Sekolah Dasar. *Basicedu*, 6(6).
- Prayitno, H. J., Huda, M., Inayah, N., Ardi, H., & Yusof, N. (2021). Politeness of Directive Speech Acts on Social Media Discourse and Its Implications for Strengthening Student Character Education in the Era of Global Education. *Asian Journal of University Education*, 17(4), 179–200. https://doi.org/10.24191/ajue.v17i4.16205
- Putri, Saradeba, & Rachman. (2024). Transformasi Melalui Literasi Digital: Peran Generasi Muda dalam SDGs dan Daya Saing Global. *Jurnal Indopedia*, 2(2).
- Sales, J. N., Tiongco, R., Lu, S., Ruiz, M. J., Cruz, J., & Prudente, M. (2024). Personal Privacy and Cyber Security: Student Attitudes, Awareness, and Perception on the Use of Social Media: Student Attitudes, Awareness, and Perception on the Use of Social Media. *International Journal of Curriculum and Instruction*, 16(1), 175–190.
- Samala, A. D., Rawas, S., Criollo-c, S., Fortuna, A., Feng, X., Prasetya, F., Uluçay, N. Ö., Jaya, P., & Hidayat, R. (2024). Social Media in Education: Trends, Roles, Challenges, and Opportunities for Digital-Native Generations A Systematic Literature Review. *Asian Journal of University Education*, 20(3), 524–539. https://doi.org/10.24191/ajue.v20i3.27869
- Sarasvati, P., & Siswadi, G. A. (2025). Peran Literasi Digital dalam Memfilter Informasi dan Konten Hoaks di Media Sosial. *PRATYAKSA: Jurnal Ilmu Pendidikan, Sosial Dan Humaniora, 01(1), 1–16.*
- Sari, Y., & Prasetya, D. H. (2022). Literasi Media Digital Pada Remaja, Ditengah Pesatnya Perkembangan Media Sosial. *Jurnal Dinamika Ilmu Komunikasi*, 8(1), 12–25.
- Šímová, T., Zychová, K., & Hartman, R. (2021). Twitter How the covid-19 analysis: change understanding of virtual teams. In M. F., F. M.D.F., S. I., & R. A. (Eds.), Proceedings of the European Conference on Innovation and Entrepreneurship, ECIE (pp. 901-909). Academic Conferences and Publishing International Limited. https://doi.org/10.34190/EIE.21.256
- Singha, S. (2023). Exploring the role of social media in enhancing K-12 economics education. In *Cases on Economics Education and Tools for Educators* (pp. 160–182). IGI Global. https://doi.org/10.4018/978-1-6684-7583-6.ch007
- Stefany, Stella, Nurbani, B. (2017). Literasi Digital dan

- Pembukaan Diri: Studi Korelasi Penggunaan Media Sosial pada Pelajar Remaja di Kota Medan. *Sosioglobal: Jurnal Pemikiran Dan Penelitian Sosiologi*, 2(1), 10–31.
- Subakti, M. F. (2022). Literasi Digital: Fondasi Dasar Dakwah Dalam Media Sosial. *Jurnal Dakwah*, 23(1), 1–16. https://doi.org/10.14421/jd.23.1.22.4
- Suliyanta. (2020). Literasi Digital, Riset dan Perkembangannya dalam Perspektif Social Studies.
- Urquizo, J., Singh, P., Lansdale, D., Sanchez, N., Bermudez, K., Easlick, T., Lawrence, C., Wacker, N., Cooper, K., Choi, C. H., Huhmann, M., Sullivan, J., Cordova, J., & Martin, C. (2020). Laying the Foundations for a Digital Literacy Program in the Galapagos Islands. 2020 IEEE Global Humanitarian Technology Conference, GHTC 2020. https://doi.org/10.1109/GHTC46280.2020.934287
- Vian, G. M. (2013). The Church and Social Networks. L'Osservatore Romano.
- Warnars, H. L. H. S., & Mursitama, T. N. (2024).

  Mapping the Landscape of Social Learning:
  Integrating Key Success Factors, Challenges, and
  Digital Platforms. Proceedings of 2024 International
  Conference on Information Management and
  Technology, ICIMTech 2024, 375–380.
  https://doi.org/10.1109/ICIMTech63123.2024.107
  80808
- Willis, L.-D., & Exley, B. (2022). Engaging Parents in Inquiry Curriculum Projects with Social Media: Using Metalogue to Probe the Methodological and Ethical Dilemmas in Literacy Research. In *Cultural Studies and Transdisciplinarity in Education* (Vol. 15, pp. 113–127). Springer. https://doi.org/10.1007/978-981-16-6944-6\_8
- Wono, H. Y., Supriaddin, N., Amin, F., Indriastuti, Y., Sufa, S. A., Surabaya, U. C., Tinggi, S., Ekonomi, I., Enam, E., Kendari, U. M., Digital, L., Bisnis, I., & Strategi, M. (2020). Media Sosial, Literasi Digital, Dan Inovasi Bisnis. *Jurnal Ilmiah Manajemen Dan Bisnis*, 77–86.
- Zamir, M. T., Ullah, F., Tariq, R., Bangyal, W. H., Arif, M., & Gelbukh, A. (2024). Machine and deep learning algorithms for sentiment analysis during COVID-19: A vision to create fake news resistant society. *PLoS ONE*, 19(12 December). https://doi.org/10.1371/journal.pone.0315407
- Zonyfar, C., Maharina, M., Sihabudin, S., & Ahmad, K. (2022). Literasi Digital: Penguatan Etika Dan Interaksi Siswa Di Media Sosial. *JMM (Jurnal Masyarakat Mandiri)*, 6(2), 1426. https://doi.org/10.31764/jmm.v6i2.7274