

The Shift from Print to Digital Media and Its Effect on Users' Media Literacy in Critiquing the Depth of News: A Systematic Literature Review

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ABSTRACT

Since the global outbreak of coronavirus, the existence of print media has been displaced by online media which the public can easily access any information from their smartphones. However, with this change the credibility of online media is often questioned because of the rampant fake news circulating, where one of the reasons is accessibility that everyone could become a writer. On the other hand, the editing process is considered not as strict as the printed media, so that it has a stigma that this news is just faster than the others but without any appropriate confirmation of facts. Thus this systematic literature review study will discuss the effect of changing print media to digital media and its influence on user media literacy in criticizing news. The results obtained show that there are still many people, especially the younger generation, who cannot distinguish fake news from the accurate one. In conclusion critical media literacy is needed so that journalism in the future does not experience setbacks.

Keywords: Media Literacy; Online Media; Fake News; Journalism

Introduction

Internet users are freely connected to various genres that can arouse one's curiosity through the millions of narratives offered by the internet (Lindgren, 2017). According to Publishing and the Media Industries in the Digital Age, print media is unlikely to exist for a prolonged period because consumers will start switching to digital media instead of buying newspapers, books, or magazines, since digital media is clearly unique in its ability to attract readers both in terms of how news is presented, provided with comment columns, and the sense of entertainment (Hibbert, 1999)

Younger people consume news content using mobile phones in greater proportion than older groups. The Digital News Report found that smartphones are the primary platform for users under 25 to access news, beating all media platforms including broadcast news on TV (Hill & Bradshaw, 2018). Meanwhile, for those above 25 years old, broadcast news on TV is the most preferred platform for them to consume news information. (Reuters Institute, 2016) This research shows that smartphones can clearly accommodate the needs of most groups of people to consume media. One of the key factors in the displacement of magazines and newspapers is the simplicity with which consumers may obtain news on it at any time and in any place.

Realizing this, various media companies have flocked to maintain their existence in the digital world, and various online news portals have emerged to present the latest news to people who tend to shift their behavior to want to be fast and connected. Through the Digital News Report 2022, the media landscape in Indonesia shows that people consume more online media where the percentage is 88%. The report also states that Detik.com, Kompas online, and CNN.com are the top 3 online news portals most frequently accessed by the public (Reuters Institute, 2022)

But on the other hand, the speed of online media in presenting news is considered not all accountable when compared to print media. The reason is that the news presented in the print media, the content is more accountable because the production has gone through an editing process so that it is better able to avoid the existence of data that is not suitable for printing which then makes the content in print media considered to be more accurate than digital media (Ispriadi, Putri, & Dewani, 2020). So that digital media often gets the stigma of not being able to convey news in depth.

This assumption makes researchers conduct a study related to the issue of online media existence on the critical literacy of the community in responding to news on applications and news portals. The discussion will include media literacy, clickbait. The question to be answered in this systematic literature review is:

RQ1. How does the shift from print media to digital media affect users' media literacy in criticizing news?

Theoretical Background

Media Literacy and the Nature of Digital Media

Talking about online media is closely related to media literacy. Media literacy itself is defined as the knowledge, skills and competencies needed to interpret media (Kamerer, 2013). The concept of media literacy also involves critical literacy based on reflection, analysis and evaluation. It is not only about the content and supporting elements of media texts, but also about the social, economic, political, and historical contexts in which the messages are formed (Kamerer, 2013). When someone becomes more sensitive to media literacy, this has a good impact on one's point of view in viewing the news with a clearer perspective in classifying what points are reality, which points are actually the result of media construction (Zhang & Zhu, 2016). So it will be easier to navigate the right information and not distracted by things that are wrong and dangerous and a better experience in consuming media (Kamerer, 2013).

Mediated media, one of which is digital media, has vague boundaries. Everyone can publish something and become a creator. Consumers can even choose where to receive the news from. However, sometimes sources that look convincing do not fully convey news according to reality because not everyone has credibility in delivering news,

especially if the news comes from social media where the quality of individuals who share messages or news is still of questionable value. Therefore, sorting out good quality information eventually becomes a necessary skill. By strengthening media literacy, one can improve their choice and understanding of better information to consume.

Clickbait News and Disruption of Digital Media

The tendency for people to want everything to be fast-paced has led to the rise of hoax consumption in society. The use of "clickbait" has become widespread among digital producers and content, especially in the news media industry. In fact, it has become popular and people intuitively understand this strategy (Bazaco, Redondo, & Sánchez-García, 2019).

Based on previous studies, clickbait is defined as a way to promote articles or content by attracting readers to click on a headline that has been inserted with a link and is generally spread through a short message as bait (Potthast et al, 2016, p.810) Thus, clickbait content is produced with an approach to seeking attention as an economic strategy that is closely related to sensation, information in the form of entertainment, where the bait is intended as a way of marketing applied through eye-catching headlines, direct invitations to readers, to the superficial and exaggerated nature of the content (Bazaco et al., 2019) The reason this phenomena exists is because an intriguing title will encourage people to read more about the news. In other words, reading the primary headline, which is regarded as the basic premise of the entire information that the news writer intends to deliver to readers, is how internet users deal with the deluge of information in online media (Dor, 2003).

The flood of information is what causes more noise or disturbances in digital media, including piracy, copyright, search engine manipulation, identity theft, and phishing; as a result, the first line of defense is to create an educated society, to become someone who is aware of media literacy, to become someone who will think carefully before clicking and sharing information, also being educate with media literacy

Critical Literacy and News Depth

If drawn to the issue in Indonesia, the Reuters Institute Study of Journalism Indonesia survey, (Steele, 2022) shows that public trust in online media journalism is 39% which is quite low. The reason is their belief that news portals are not independent of the interests of several parties ranging from economics, politics, to business. Humprecht (2017) himself also said that one of the functions of the media in a democratic society is to broadcast independent, credible, and fair news, so that the function of the media can be fulfilled and reader loyalty increases.

Research Method

Research Methods: Systematic Literature Review

Systematic Literature Reviews aim to include all published evidence on the subject and evaluate the quality of this evidence while integrating scientific evidence to answer a specific research question in a transparent and reproducible manner (Lame, 2019). Therefore, researchers decided that systematic literature review as the method for answering the research question. This scientific journal article is written with the aim of finding out previous research on the shift in existence from print media to digital media and its influence on readers' media literacy in understanding and criticizing the depth of news. To achieve this goal, a systematic literature review of articles, journals, conference papers, and books that discuss this subject is required.

Data Collection Criteria and Techniques

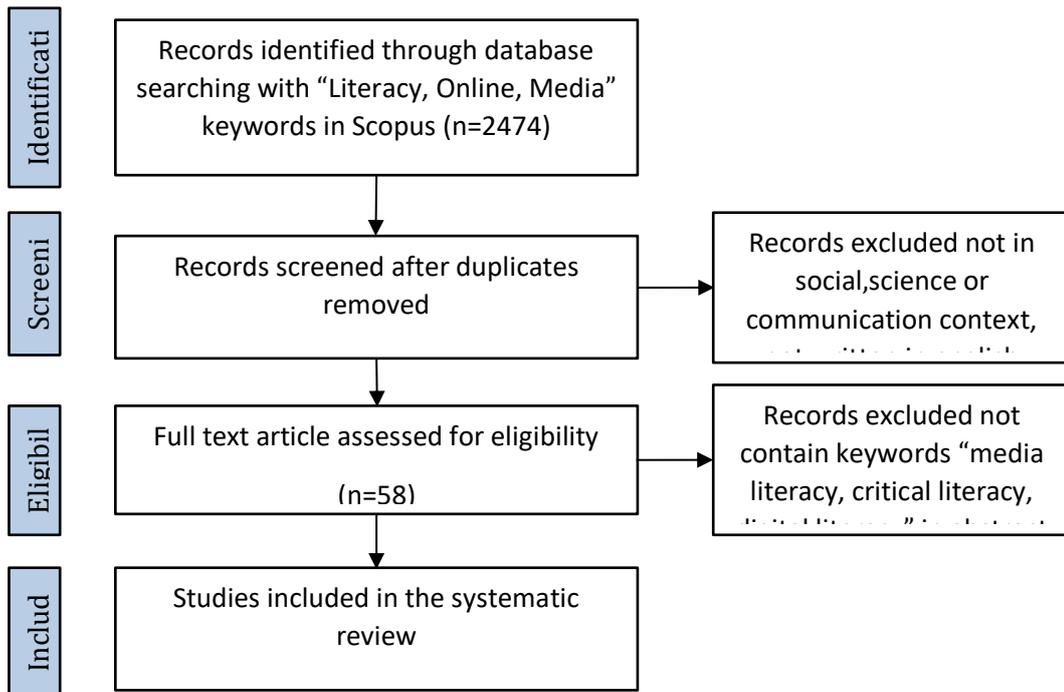
A systematic literature review was conducted by screening secondary data documents that had data criteria including being published and affiliated with Scopus using the keyword critical online media literacy and the search was limited to the subject area of social sciences and humanities and publications on media with English delivery language during the time period 2020 to 2023 there were a total of 233. Journal articles related to the keywords were then reduced according to the inclusion and exclusion criteria until a total of 12 documents were obtained after passing the screening stage Table 1

Table 1. Inclusion and Exclusion

Criteria	Inclusion	Exclusion
Year of Publication	2020- April 2023	Dibawah 2020
Field of Research	Social sciences and humanities only	In addition to social sciences and humanities
Document Type	Article only	In addition to articles
Keyword	critical media literacy; online internet media;	Without keywords
Source	Journals and Book	Besides Journals and Book
Language	English only	Besides english

The articles analyzed are journals from the period 2020 to 2023 in Scopus publications where 5 journals from the publication year 2022, 5 journals from the publication year 2021, 2 journals from the publication year 2020 were found. The reduced journal articles are also limited to using only English with the source of the discussion areas of Media and Communication, Media Literacy Education, New Media and Society. With that, the following PRISMA diagram is the flow of data filtering (Table 2)

Table 2. Reduction Prism Selection



Result and Discussion

Result

From a total of 233 articles with the keyword critical online media literacy, the search was screened based on year of publication, discipline, and concept category. Thus, the proportion of articles that appear will be displayed in the table below as follows. The percentage of article findings is also broken down by research method and location.

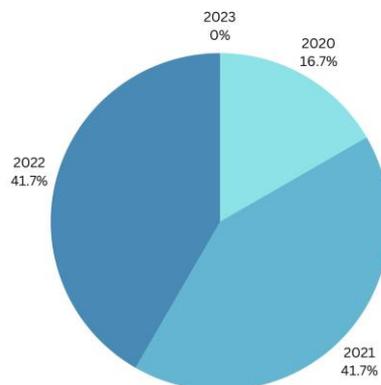


Figure 1.
Findings by Year of Publication

The pie chart above shows the percentage of journal findings from 2020 to 2023 with predetermined keywords and restrictions. It was found that in 2020 there were 2 journal findings (16.7%), in 2022 and 2021 the percentage was the same, namely each year there were 5 journal findings (83.4%), while in 2023 no discussion of media literacy was found

in the sources of discussion that have been submitted in the data criteria sub chapter.

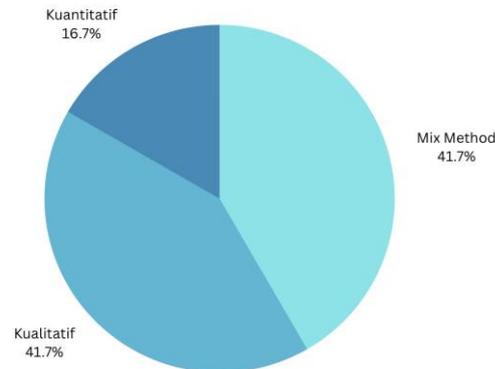


Figure 2.
Findings Based on Research Methods

Of the 12 related journals, 5 journals (41.7%) conducted qualitative research, 2 journals (16.7%) conducted quantitative research, and 5 journals (41.7%) conducted mixed method research. Based on observations in the related literature, interviews are the most widely used data collection technique. Although some studies conducted a survey questionnaire at the beginning, there were 5 journals that still used the interview technique after the survey was conducted.

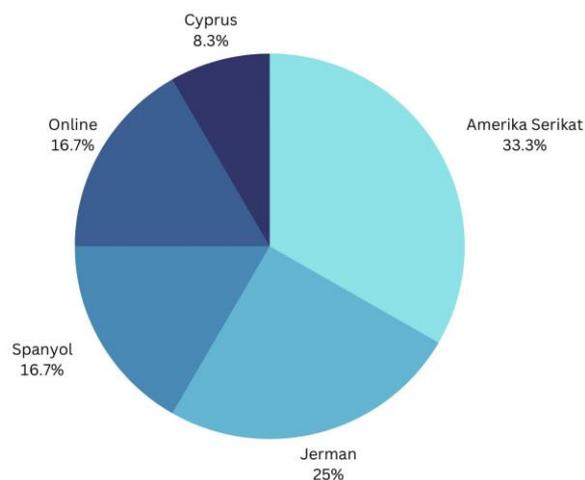


Figure 3.
Findings Based on Research Location

The findings show that the majority of research was conducted in the United States (33.3%), followed by Germany (25%), then Spain (16.7%) and online methods (16.7%) have the same value of 2 journals each. Finally, Cyprus found 1 journal (8.3%). From the above pie, it can be seen that the United States brings the most issues to research from 2020 to 2023.

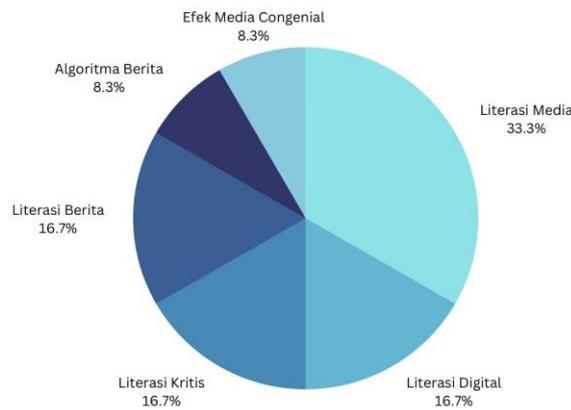


Figure 4.
Findings Based on Research Concepts

Based on the journal findings, the fundamental concepts obtained, the distribution is as follows where the concept of Media Literacy was found in 4 journals, Digital Literacy in 2 journals, Critical Literacy in 2 journals, News Literacy in 2 journals, News Algorithm in 1 journal, and Congenial Media Effect in 1 journal.

Selected Journal Articles

Through screening based on data criteria, 12 journals from 2020 to 2023 were obtained as follows with details of journal titles and years, authors, concepts, research locations, and research methods (Table 2).

Table 3. Selected Journal Articles

NNo	Journal Title and Year	Author	Concept Fundamentals	Research Location	Research Methods
11	Mapping the Inclusion of Children and Youth With Disabilities in Media Literacy Research (2022)	Carla Sousa (2022) dan Conceição Co	Media Literacy	Portugal, Spanyol	Quantitative
22	Inclusive Media Education in the Diverse Classroom: A Participatory	Bozdağ, Çiğdema (2022)	Media Literacy Education	Jerman	Qualitative

NNo	Journal Title and Year	Author	Concept Fundamentals	Research Location	Research Methods
	Action Research in Germany (2022)				
33	Journalism Students and Information Consumption in the Era of Fake News (2021)	Santiago Tejedor, Marta Portalés, Ricardo Carniel-Bugs dan Laura Cervi	Fake News & Media Literacy	Barcelona, Spanyol	Quantitative and Qualitative
44	Transforming Disinformation on Minorities Into a Pedagogical Resource: Towards a Critical Intercultural News Literacy (2022)	Sílvia Melo-Pfeifer dan Helena Dedecek Gertz	Critical Intercultural News Literacy	Jerman	Qualitative
55	News literacy, fake news recognition, and authentication behaviors after exposure to fake news on social media (2022)	Chan, Michael (2022)	News Literacy	Online, Japan	Quantitative
66	Going against the grain? Examining the efficacy of media literacy interventions on congenial media effects (2022)	Blomberg, Matthew L. (2022)	Congenial Media Effects	US	Quantitative
77	Exploring adolescents' critical thinking aptitudes when	Bissonnette, Marianne; Bissonnette M.; Chastenay,	Critical Media Literacy	Kanada, US	Quantitative and Qualitative

NNo	Journal Title and Year	Author	Concept Fundamentals	Research Location	Research Methods
	reading about science in the news (2021)	Pierre; Francoeur, Chanta (2021)			
88	Media, obesity discourse, and participatory politics: Exploring digital engagement among university students (2021)	Papaioannou, Tao (2021)	Digital Literacy	Cyprus	Qualitative
99	Internet users' utopian/dystopian imaginaries of society in the digital age: Theorizing critical digital literacy and civic engagement (2021)	Polizzi, G (2023)	Civic Engagement & Critical Digital Literacy	Online	Qualitative
110	Public knowledge of alternative media in times of algorithmically personalized news (2021)	Klawier, Tilman; Klawier T (2023).; Prochazka, Fabianb; Schweiger, Wolfgang	Algorithmically personalized news channels (APNC)	Jerman	Quantitative
111	Can middle schoolers learn to read the web like experts? Possibilities and limits of a strategy-based intervention	Kohnen, Angela M; A.M (2020).; Mertens, Gillian E.; Boehm, Shelby M	Digital Literacy	US	Qualitative

NNo	Journal Title and Year	Author	Concept Fundamentals	Research Location	Research Methods
	(2020)				
112	Is that media literacy?: Israeli and US media scholars' perceptions of the field (2020)	Turin, Ornata; Turin O (2020).; Friesem, Yonty	Literasi Media	US	Quantitative

Discussion

Media literacy is an issue that is widely discussed in research with the main topic of online media considering that there are quite a lot of problems that are close to internet users, including hoaxes, clickbait, and interference in online media, are the topics that attract the attention of scholars. The reason for choosing this period of years during the period 2020-2023 is because there is a phenomenon that is relevant to the flood of information, namely the covid pandemic. Based on a total of 12 journals that have been screened, there are 3 journals whose main topic of discussion is in line with the concept of media literacy, especially on news portals, namely Exploring adolescents' critical thinking aptitudes when reading about science in the news (2021), Journalism Students and Information Consumption in the Era of Fake News (2021), Transforming Disinformation on Minorities Into a Pedagogical Resource: Towards a Critical Intercultural News Literacy (2021).

In "Transforming Disinformation on Minorities into a Pedagogical Resource: Towards a Critical Intercultural News Literacy" media literacy is seen from a cultural approach where there is a lot of disinformation about immigrants on news websites and news on social media. The problem is that a lot of disinformation labels itself as "news" which gives the impression that the message conveyed is a factual reality. This will be fatal if consumed by students who will use the news as factual data (Tumber & Waisbord, 2021). In this research, the idea that is considered to be a solution is to bring news that is considered fake into class discussions. So that there will be a joint analysis, and educators, teachers - who are considered to be the most trusted figures for students, can make this a pedagogy to make their students more able to see the potential manipulation in the delivery of news in online media, especially those that are seditious.

The journal "Exploring adolescents' critical thinking aptitudes when reading about science in the news" conducted a study of adolescents to test their cognitive ability to select information in news articles taken from Canadian blogs and traditional media. This study used quantitative and qualitative approaches through semi-structured

interviews and found a large gap between participants in terms of critical thinking skills. In this exploratory study, readers will be invited to see the strengths and weaknesses of adolescents in media news literacy. The results obtained are that in some cases, they tend to have arguments that are similar to the arguments of the person who argued before (Bissonette, 2021) so that there is a confirmation bias which is often said to be selective laziness of reasoning (Nickerson, 1998; Bissonette, 2021). However, overall, they show skepticism towards news and tend to criticize the online news provided through several clarifying questions.

While in the journal "Journalism Students and Information Consumption in the Era of Fake News", research was conducted through a survey with an exploratory perspective with research participants being journalism students at the Autonomous University of Barcelona (UAB). This research focuses on the character of Gen Z in consuming news where Gen Z is an early generation whose life has naturally been in the period of internet development. But on the other hand, some studies show that this generation is the most vulnerable to fake news (Wineburg & McGrew, 2016). But in some sub-groups, this generation plays an important role and is responsible for the future fate of journalism and professional communication.

The results obtained are 90% of respondents use social networks to get information and 67% prefer to access online newspapers for information consumption. The preferred channels are politics, events and sports. Meanwhile, in the context of producing news, 43.4% said they first verified the information obtained, 12.3% immediately trusted their trusted news portal. 7.5% admitted that they did not have time to check the information again (Tejedor, Portalés-Oliva, Carniel-Bugs, & Cervi, 2021) When participants were asked to define "fake news", the responses were false facts, lying, manipulating, confusing, taking advantage, and misleading. They also believed that digital platforms surrounded by fake news were most prevalent during the 2020 pandemic. When asked about whether they have ever been involved in sharing fake news, 56.1% said they have shared fake news by mistake, while 44.1% said they have never done so. This research provides an interesting perspective that even fake news is not only a challenge and a trap for ordinary people, but also a challenge for the future of journalism as well.

Thus, the systematic literature review on media literacy in digital media in the period 2020-2023 answers the research question regarding the influence of the shift from print media to digital media on users' media literacy in criticizing news. This is shown by the fact that it is still difficult for people to identify fake news. Moreover, they have not yet recognized the characteristics of the wrong news message. In the above studies, it was found that there is still a lack of education about media literacy. One of the things that can be considered as a solution is to add a media literacy curriculum to the education sector, which is the initial foundation for educating the younger generation. Therefore, it is necessary for media literacy skills to continue to be promoted to train critical thinking.

If we draw this discussion through the Indonesian context, the impact of the covid-19 pandemic is also quite heavy for the media industry, especially print media, which is slowly losing profits, for example Suara Pembaruan, which finally closed its print edition in February 2021 (Steele, 2022). However, this does not have much impact on print media that have begun to expand their medium to online media and applications, for example Kompas.id, which has appeared in the form of an application since 2018. So the strategy to get revenue can be through offering membership and daily newspapers to followers, while readers who didn't purchase for membership – namely Freemiums, only get snippets of news reading and cannot access featured content such as Tuter Visual, Research and Infographics. Through Reuters Institute research in 2022, it is said that the main source of urban people is online media which scores 88%. The 5 media brands that people trust are CNN, Kompas, TVRI, Detik.com, SCTV Liputan 6.

This Reuters research also says that public trust in online media is likely to be low at 39% in the period 2021 to 2022. This may be in line with the stigma that the speed of online news publication makes it less trustworthy (Ispriadi et al., 2020). But based on the 2022 Reuters Institute Study of Journalism Indonesia survey, it can also be seen that in the end the public can choose their own media that is considered correct. In addition, in the field, news articles tend to be written in pieces and not thoroughly in order to bring in more reader traffic to stay on the news portal website so that this makes people's understanding of the news less in-depth. But on the other hand, there is the fact that online media also has content that is deliberately explored in depth such as for example Tuter Visual owned by Kompas and detikX owned by detikcom. Where investigations and chronologies are carried out in detail. Therefore, public sensitivity is needed to be able to choose which content must be consumed to get complete and reliable information. Digital literacy is an important element for the community when they start surfing the online media.

Conclusion

This article describes the impacts of the shift from print to digital media on platform users' media literacy in interpreting the depth of news. One of them is about exposure to fake news. Among the 12 selected journals, there are several studies (Tumber & Waisbord, 2021) that have expressed the importance of media literacy to the future of society and journalism. Especially regarding online media disruptions such as manipulation to hoaxes. This is increasingly happening after the pandemic period that has hit the world, where in 2020 it is the right time for them to seek profit by spreading false news when people are vulnerable and frightened by the pandemic phenomenon that has hit, causing a flood of information which can make people careless of fake news that is packaged like having the impression that the news can be considered true.

While in Indonesia, the survey proved that 88% of urban communities claimed to get the latest and main information from online media that can be accessed through websites

and news portal applications on their smartphones. In the Reuters Institute Study of Journalism Indonesia survey, there is also data that there are some online media that are less trusted by the public because the news carried out is biased towards certain parties, both government, business interests, and politics. On the other hand, online media in Indonesia often divide news into several articles to increase reader traffic on websites and applications. This has an impact on how deep a person is in interpreting news critically. Therefore, media literacy is needed by the community to train sensitivity in choosing which content needs to be consumed in order to get a comprehensive and credible understanding of an issue.

Bibliography

- Bazaco, Ángela, Redondo, Marta, & Sánchez-García, Pilar. (2019). Clickbait as a strategy of viral journalism: conceptualisation and methods. *Revista Latina de Comunicación Social*, (74), 94.
- Bissonnette, Marianne, Chastenay, Pierre, & Francoeur, Chantal. (2021). Exploring Adolescents' Critical Thinking Aptitudes When Reading about Science in the News. *Journal of Media Literacy Education*, 13(1), 1–13.
- Blomberg, Matthew L. (2022). Going against the grain? Examining the efficacy of media literacy interventions on congenial media effects. *Journal of Media Literacy Education*, 14(1), 43–58.
- Bozdağ, Çiğdem. (2022). Inclusive media education in the diverse classroom: A participatory action research in Germany. *Media and Communication*, 10(4), 305–316.
- Chan, Michael. (2022). News literacy, fake news recognition, and authentication behaviors after exposure to fake news on social media. *New Media & Society*, 14614448221127676.
- Dor, Daniel. (2003). On newspaper headlines as relevance optimizers. *Journal of Pragmatics*, 35(5), 695–721.
- Hill, Steve, & Bradshaw, Paul. (2018). *Mobile-first journalism: producing news for social and interactive media*. Routledge.
- Humphrecht, Edda. (2017). *Shaping online news performance*. Springer.
- Ispriadi, Bella Dwi Syahputri, Putri, Devy Anggita, & Dewani, Prahasti Ken. (2020). Eksistensi media cetak pada masa pandemi Covid-19. *JISIP J. Ilmu Sos. Dan Ilmu Polit*.
- Kamerer, David. (2013). Media literacy. *Communication Research Trends*, 32(1).
- Klawier, Tilman, Prochazka, Fabian, & Schweiger, Wolfgang. (2023). Public knowledge of alternative media in times of algorithmically personalized news. *New Media & Society*, 25(7), 1648–1667.
- Kohnen, Angela M., Mertens, Gillian E., & Boehm, Shelby M. (2020). Can Middle

- Schoolers Learn to Read the Web Like Experts? Possibilities and Limits of a Strategy-Based Intervention. *Journal of Media Literacy Education*, 12(2), 64–79.
- Lame, Guillaume. (2019). Systematic literature reviews: An introduction. *Proceedings of the Design Society: International Conference on Engineering Design*, 1(1), 1633–1642. Cambridge University Press.
- Lindgren, Simon. (2017). Digital media and society. *Digital Media and Society*, 1–328.
- Papaioannou, Tao. (2021). Media, obesity discourse, and participatory politics: Exploring digital engagement among university students. *Journal of Media Literacy Education*, 13(3), 19–34.
- Polizzi, Gianfranco. (2023). Internet users' utopian/dystopian imaginaries of society in the digital age: Theorizing critical digital literacy and civic engagement. *New Media & Society*, 25(6), 1205–1226.
- Sousa, Carla, & Costa, Conceição. (2022). Mapping the inclusion of children and youth with disabilities in media literacy research. *Media and Communication*, 10(4), 400–410.
- Steele, Janet. (2022). Indonesia.
- Tejedor, Santiago, Portalés-Oliva, Marta, Carniel-Bugs, Ricardo, & Cervi, Laura. (2021). Journalism students and information consumption in the era of fake news. *Media and Communication*, 9(1), 338–350.
- Tumber, Howard, & Waisbord, Silvio. (2021). *The Routledge companion to media disinformation and populism*. Routledge.
- Turin, Ornat, & Friesem, Yonty. (2020). Is that media literacy?: Israeli and US media scholars' perceptions of the field. *Journal of Media Literacy Education*, 12(1), 132–144.
- Wineburg, Sam, & McGrew, Sarah. (2016). Evaluating information: The cornerstone of civic online reasoning.
- Zhang, Hui, & Zhu, Chang. (2016). A study of digital media literacy of the 5th and 6th grade primary students in Beijing. *The Asia-Pacific Education Researcher*, 25, 579–592.