Regulating Fake News and Hoaxes: A Comparative Analysis of Indonesia and Malaysia



Supanto a, Yusuf Saefudin b*, Noorfajri Ismail c, Rahtami Susanti b, Lutfi Kalbu Adi b

- ^a Faculty of Law, Universitas Sebelas Maret, Surakarta, Indonesia.
- ^b Faculty of Law, Universitas Muhammadiyah Purwokerto, Purwokerto, Indonesia.
- ^c Faculty of Syariah and Law Universiti Sains Islam Malaysia, Bandar Baru Nilai, Nilai, Negeri Sembilan, Malaysia.

ARTICLE INFO

ABSTRACT

Article history

Received: May 15, 2023 Revised: October 31, 2023 Accepted: November 5, 2023

Keywords

Criminal Justice; Fake News; Indonesia; Malaysia; Indonesia and Malaysia already have regulations prohibiting the spreading of fake news and hoaxes. However, the critical question is whether these regulations can tackle the spread of fake news and hoaxes, considering their detrimental impact on the economy and reputation. This is aimed at comprehensively understanding the legal framework in both countries. This research was designed using the normative juridical method. The approaches used are statutory approach, conceptual approach, and comparative approach. The result show Indonesia's penal policy was recently created by passing a new Criminal Code. It seeks to protect public order, public welfare, and democratic values, emphasizing a balance between freedom of speech and combating the adverse effects of hoax and fake news. Meanwhile, employs Malaysia regulatory measures through Communication and Multimedia Content Forum, relying on compliance and cooperation stakeholders. Looking ahead, emerging technologies and methodologies in digital forensics offer promise for more effective means of identifying the origins of fake news.



This is an open-access article under the CC-BY 4.0 license.



1. Introduction

Every nation agrees that science and technology play a significant role in the development and advancement of their nation. Technology has the potential to drive economic growth in the context of economic development.¹ Nations without advanced science and technology will fall behind in the development of civilization. Today, science and technology are idolized and used as political

¹ Alejandra Castelblanco and others, 'Dynamic Face Authentication Systems: Deep Learning Verification for Camera Close-Up and Head Rotation Paradigms', Computers and Security, 115 (2022) https://doi.org/10.1016/j.cose.2022.102629





^{*} corresponding author: yusuf.saefudin12@ump.ac.id

tools.² Technology is frequently seen as the only path to welfare, prosperity, and justice. In addition, the advancement of technology has given rise to a new cult, that of the consumerist society.³

The world at the end of the 20th century is characterized by "manufactured uncertainty", It is a time of uncertainty. This situation is not caused by nature, but by man himself thanks to the technology he has created.⁴ The existence of technology, which is considered important in the progress of the times, has created a myth that invites a lot of sympathies, namely viewing technology as a tool of liberation, a means of democracy and participation, and can realize human autonomy. This assumption must be critically questioned because technology can also act as a shackle for human freedom.⁵ Technology can be a tool of human liberation if humans have a critical tradition of praxis and practice practical reason. When human values are corrupted, restrained, and killed by values that prioritize "function" and "pragmatism," then technology will become an effective tool of destruction and oppression.⁶

This concern arises from the description given by George Orwell in his book Nineteen Eighty-Four. George Orwell tells the story of how technological advances have been used by the powerful to install very strict surveillance on all members of society. All citizens' livelihoods are regulated by the center of power, which monopolizes all advanced technological equipment. No longer are citizens free to think freely because life has become increasingly mechanized with realities or facts that are predictable according to the mechanical process.⁷

² Vicente Guerola-Navarro and others, 'Media or Information Literacy as Variables for Citizen Participation in Public Decision-Making? A Bibliometric Overview', *Sustainable Technology and Entrepreneurship*, 2.1 (2023), 100030 https://doi.org/10.1016/J.STAE.2022.100030 Rocío Galarza Molina, 'Youth in the Face of Disinformation: A Qualitative Exploration of Mexican College Students' Attitudes, Motivations, and Abilities around False News', *Communication and Society*, 36.2 (2023), 97–113 https://doi.org/10.15581/003.36.2.97-113

³ Bagas Pradipabista Nayoga and others, 'Hoax Analyzer for Indonesian News Using Deep Learning Models', *Procedia Computer Science*, 179.2020 (2021), 704–12 https://doi.org/10.1016/j.procs.2021.01.059

⁴ Benjamin A. Goldstein and others, 'Opportunities and Challenges in Developing Risk Prediction Models with Electronic Health Records Data: A Systematic Review', *Journal of the American Medical Informatics Association*, 24.1 (2017), 198–208 https://doi.org/10.1093/JAMIA/OCW042

⁵ Septiawan Santana Kurnia and others, 'The Characteristics of Investigative News Organizations in Indonesia between 2010-2012', *Heliyon*, 7.2 (2021), e06276 https://doi.org/https://doi.org/10.1016/j.heliyon.2021.e06276

⁶ Sergio Luna and Michael J Pennock, 'Social Media Applications and Emergency Management: A Literature Review and Research Agenda', *International Journal of Disaster Risk Reduction*, 28 (2018), 565–77 https://doi.org/https://doi.org/10.1016/j.ijdrr.2018.01.006

⁷ Ananya Roy, Stuart Schrader, and Emma Shaw Crane, "The Anti-Poverty Hoax": Development, Pacification, and the Making of Community in the Global 1960s', *Cities*, 44 (2015), 139–45 https://doi.org/https://doi.org/10.1016/j.cities.2014.07.005

No one can dispute the fact that a community's cultural values and socioeconomic structures must support a technology's level of development in order for it to exist and be developed. Understanding multiple current living systems is necessary for technological endeavors, specifically, efforts to develop systems. ⁸ This is because the system created by people (members of society) can only be formed by changing or synthesizing existing system structures. Scientific efforts produce an understanding of the structure of existing systems; therefore, the results of scientific efforts provide an information base for technological efforts. The level of technological capability of a society is strongly influenced by the intensity of scientific endeavors undertaken by that society, which in turn is strongly influenced by its cultural values. However, it should be noted that a society with a high scientific culture is not necessarily strong in technology.⁹

Technology's quick progress has altered social norms in several ways. These ultimately have an impact on various types of new crimes or variants on old crimes. This is demonstrated by the fact that there are an increasing number of criminal laws that make it illegal to commit crimes involving sexual assault, pornography, and other forms of crimes involving information and other electronic activities. Criminal law must constantly evolve because it is necessary. The gap between what should be and what really is will be pushed and closed through academic research. The widespread dissemination of fake news is one of the most significant phenomena brought on by the growth of modern technology.

There is a fundamental difference between fake news and hoaxes. Hoax is defined as news that has unclear origins or sources that are still confusing, so the truth is unclear. Meanwhile, Fake News is fake news or has been proven untrue by the official mass media. Fake News is false or proven untrue news reported by official mass media. Fake News, for example, occurred when news about the Pope supporting Donald Trump in 2016 circulated in online media. There is also a study conducted by the Massachusetts Institute of Technology that false

⁸ Toto Rusmanto and Citra Williams, 'Compliance Evaluation on CSR Activities Disclosure in Indonesian Publicly Listed Companies', *Procedia - Social and Behavioral Sciences*, 172 (2015), 150–56 https://doi.org/10.1016/J.SBSPRO.2015.01.348

⁹ Susan Hatters Friedman, 'Searching for the Whole Truth: Considering Culture and Gender in Forensic Psychiatric Practice', *Journal of the American Academy of Psychiatry and the Law*, 51.1 (2023), 23–34 https://doi.org/10.29158/JAAPL.220114-22 Paul Roberts, 'Renegotiating Forensic Cultures: Between Law, Science and Criminal Justice', *Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences*, 44.1 (2013), 47–59 https://doi.org/10.1016/J.SHPSC.2012.09.010

¹⁰ Dietram A. Scheufele and Nicole M. Krause, 'Science Audiences, Misinformation, and Fake News', *Proceedings of the National Academy of Sciences of the United States of America*, 116.16 (2019), 7662–69 https://doi.org/10.1073/PNAS.1805871115

¹¹ Seth Ashley, Adam Maksl, and Stephanie Craft, 'Developing a News Media Literacy Scale', *Journalism and Mass Communication Educator*, 68.1 (2013), 7–21 https://doi.org/10.1177/1077695812469802

information spreads faster than true and accurate information. The potential for news falsification or Fake News that exists in the professional news production process can be found.¹²

In Indonesia itself, the phenomenon of fake news is growing rapidly, at least during the 2014 presidential election. One of the channels of a private television station owned by a political party figure aired quick-count results from three survey institutions that won the Prabowo-Hatta pair. On the other hand, many survey institutions won the Jokowi-JK pair. The quick-count results were used as the basis for the Prabowo-Hatta pair to declare victory.¹³ Responding to this, the Press Council, which was chaired by Bagir Manan at the time, stated that press freedom must be maintained from all forms of pressure, interference, and degradation from any party, both inside and outside the press environment. Press freedom, among other things, is upheld by maintaining the independence of the newsroom.¹⁴ For broadcast media, the independence of the newsroom is absolute, because broadcast media use frequencies as public property and domain. Since then, fake news and hoaxes have flourished. Along with the presence of various social media platforms that are used not only to share social activity content but also by the press media to spread news content. Misleading information is usually spread through everyday access media such as blogs, newspaper sites, and social media especially WhatsApp since it is currently the most active social media used by Indonesian people with penetration reaching 83%.¹⁵

Based on the data collected, the total population (total population): 277.7 million (2021: 274.9 million / 1% increase). Mobile connected devices: 370.1 million (2021: 345.3 million/up 3.6%). Internet users: 204.7 million (2021: 202.6 million/growing 1%). Active social media users: 191.4 million (2021: 170 million, up 12.6%). The figure below shows data on the trend of internet and social media users in 2022 in Indonesia: Meanwhile, Social media users in Indonesia continue to rise every year. Recorded in 2014, social media users: 62.0 million people, and in

¹² Edy Yulianto and others, 'Community Adaptation and Action during the Emergency Response Phase: Case Study of Natural Disasters in Palu, Indonesia', *International Journal of Disaster Risk Reduction*, 65 (2021), 102557 https://doi.org/https://doi.org/10.1016/j.ijdrr.2021.102557

¹³ Mauridhi Hery Purnomo and others, 'Keynote Speaker II: Biomedical Engineering Research in the Social Network Analysis Era: Stance Classification for Analysis of Hoax Medical News in Social Media', *Procedia Computer Science*, 116 (2017), 3–9 https://doi.org/https://doi.org/10.1016/j.procs.2017.10.049

¹⁴ Didi Kwartanada, 'Language Ungoverned: Indonesia's Chinese Print Entrepreneurs, by Tom G. Hoogervorst', *Bijdragen Tot de Taal-*, *Land- En Volkenkunde / Journal of the Humanities and Social Sciences of Southeast Asia*, 178.4 (2022), 512–15 https://doi.org/https://doi.org/10.1163/22134379-17804004

¹⁵ S Mo Jang and Joon K Kim, 'Third Person Effects of Fake News: Fake News Regulation and Media Literacy Interventions', *Computers in Human Behavior*, 80 (2018), 295–302 https://doi.org/10.1016/J.CHB.2017.11.034

2022, social media users: 191 million people. In addition, WhatsApp is the most widely used application in Indonesia.¹⁶

Looking at the data above, it is certainly a concern for all parties, especially the state to be present in providing security and public order guarantees. Given that the potential of fake news has great potential to cause disturbances to public order and cause divisions of national unity and integrity. For example, the presidential election in 2014 caused tension in the community, and the consequences are still felt today. Responding to this, the Central Government and the House of Representatives have agreed to pass Law No. 1 of 2023 concerning the Criminal Code.¹⁷

Paragraph 7 article 263 regulates the broadcasting or dissemination of false news or notifications. Any person who broadcasts or disseminates news or notification, knowing that such news or notification is false, which may cause riots in the community, shall be punished by a maximum imprisonment of 6 (six) years or a maximum fine of category V. Any person who broadcasts or disseminates news or notification when it is reasonably suspected that such news or notification is a hoax that may result in a riot in the community shall be punished by a maximum imprisonment of 4 (four) years or a maximum fine of category IV. However, the Indonesian Journalistic Alliance has responded and believes that the regulation threatens press freedom in Indonesia.¹⁸

This is certainly a dilemma, on the one hand, the government is trying to control the massive fake news and hoaxes, on the other hand, the regulation provides limited space for the press in its journalistic duties.¹⁹ The Indonesian Journalists Alliance's response to the formulation of the new Criminal Code that regulates broadcasting and dissemination of information raises another question, namely whether the Indonesian Journalists Alliance has been involved in the drafting of the new Criminal Code. The involvement of the Indonesian Journalists Alliance is important, especially in accommodating their voices in carrying out

¹⁶ Redhita Putri Wijayanti, Putu Wuri Handayani, and Fatimah Azzahro, 'Intention to Seek Health Information on Social Media in Indonesia', *Procedia Computer Science*, 197 (2022), 118–25 https://doi.org/https://doi.org/10.1016/j.procs.2021.12.125

¹⁷ Zora A Sukabdi, 'Bridging the Gap: Contributions of Academics and National Security Practitioners to Counterterrorism in Indonesia', *International Journal of Law, Crime and Justice*, 65 (2021), 100467 https://doi.org/https://doi.org/10.1016/j.ijlcj.2021.100467

¹⁸ Susanne Dida and others, 'Gender, Education, and Digital Generations as Determinants of Attitudes toward Health Information for Health Workers in West Java, Indonesia', *Heliyon*, 7.1 (2021), e05916 https://doi.org/https://doi.org/10.1016/j.heliyon.2021.e05916

¹⁹ Paul Mihailidis and Samantha Viotty, 'Spreadable Spectacle in Digital Culture: Civic Expression, Fake News, and the Role of Media Literacies in "Post-Fact" Society', *American Behavioral Scientist*, 61.4 (2017), 441–54 https://doi.org/10.1177/0002764217701217

their journalistic activities. It is also a reflection of the implementation of democratic principles in the drafting of the new Criminal Code.²⁰

Therefore, this article aims to discuss how digital technology determines the dissemination of information and freedom of speech in Indonesia.²¹ In addition, it also discusses the principles of democratic criminal justice in the preparation of the Criminal Code, especially in the regulation of Broadcasting or Dissemination of fake news or hoax.²² Three important things that form the basis of this research are: First, Lack of Comprehensive Comparative Research. There is a limited body of comprehensive comparative research that specifically focuses on the regulation of fake news and hoaxes in Indonesia and Malaysia.²³ While various studies have examined the issue in individual countries, there is a gap in research that systematically compares the regulatory approaches, legal frameworks, and their effectiveness in these two Southeast Asian nations. Second, Freedom of Expression Concerns. Balancing the regulation of fake news with the preservation of freedom of expression is a complex challenge. Research gaps exist in understanding how these countries navigate this delicate balance, and whether regulations may inadvertently restrict legitimate speech or impede press freedom. Third, Digital Forensics and Enforcement: Investigative techniques, such as digital forensics, play a significant role in identifying the sources of fake news. Research gaps exist in exploring the capacity and utilization of digital forensics in both Indonesia and Malaysia and the challenges faced in enforcing these regulations effectively.

Through a systematic examination of the legislative process, this article unravels the intricate dynamics that influenced the drafting of the provisions. It investigates the roles of various stakeholders, including policymakers, legal experts, technologists, civil society organizations, and the public, in shaping the discourse surrounding fake news and hoaxes. By assessing the motivations, challenges, and intentions of these actors, the article provides a comprehensive understanding of the intricate balance between technological advancements and legal responses. Furthermore, the study offers critical insights into the potential implications of the new criminal code provisions on freedom of expression, media ethics, and digital literacy. It examines the delicate equilibrium between safeguarding public interests and protecting individual rights within the digital age. By analyzing the potential benefits and drawbacks of the regulatory

²⁰ Tomasz Piotr Wisniewski, 'Is There a Link between Politics and Stock Returns? A Literature Survey', *International Review of Financial Analysis*, 47 (2016), 15–23 https://doi.org/https://doi.org/10.1016/j.irfa.2016.06.015

²¹ Demetris Vrontis and others, 'Societal Effects of Social Media in Organizations: Reflective Points Deriving from a Systematic Literature Review and a Bibliometric Meta-Analysis', *European Management Journal*, 40.2 (2022), 151–62 https://doi.org/https://doi.org/10.1016/j.emj.2022.01.007

²² Agus Raharjo and others, 'The Legal Policy of Criminal Justice Bureaucracy Cybercrime', *Bestuur*, 10.2 (2022), 105–22 https://doi.org/https://doi.org/10.20961/bestuur.v10i2.64498

²³ Richard I Shader, 'Troublesome News, Fake News, Biased or Incomplete News', *Clinical Therapeutics*, 40.9 (2018), 1429–34 https://doi.org/https://doi.org/10.1016/j.clinthera.2018.08.003

measures, this article contributes to the ongoing global dialogue on effectively combating fake news and hoaxes while upholding fundamental human rights.

2. Research Method

This article is the result of research designed using the normative juridical method. The approach used in this research is the statutory approach by collecting various laws and regulations related to the object under study. This research also uses a conceptual approach to understand more deeply about hoaxes and fake news. Data is sourced from primary legal materials which include legislation, and judicial decisions; secondary legal materials which include relevant books and scientific journals; and tertiary legal materials which support the resolution of problems in this study. The data obtained were inventoried and tested for validity using the data triangulation method. Data that has been tested is analyzed with descriptive-analytical.

3. Results and Discussion

Digital Technology Determinants of Information Dissemination and Freedom of Expression in Indonesia

Digital technology has played a pivotal role in shaping the landscape of information dissemination and freedom of expression in Indonesia, a country with a rapidly growing internet user base and a diverse population. This analysis delves into the determinants, challenges, and opportunities related to digital technology in these domains in Indonesia. Community activities in the Era of Society 5.0 cannot be separated from the use of digital technology.²⁴ This is characterized by the increasingly massive digital activities in cyberspace that are carried out. For example, Google serves up to 5.7 million search keywords every minute, and TikTok videos are viewed by 167 million people every minute. In addition, at least 500 hours of content are uploaded, and 694 thousand hours of YouTube videos are watched a minute.²⁵

The data shows the size and speed of digital traffic today, causing people to increasingly rely on the use of digital technology. This development makes access to information faster and massively spread to various regions. Two perspectives can be used to see the development of internet technology as digital media in society, namely placing digital media as a physical artifact resulting from the

²⁴ Tanveer Khan, Antonis Michalas, and Adnan Akhunzada, 'Fake News Outbreak 2021: Can We Stop the Viral Spread?', *Journal of Network and Computer Applications*, 190 (2021), 103112 https://doi.org/https://doi.org/10.1016/j.jnca.2021.103112

²⁵ I Mwase and others, 'Experiences of Using the Toll-Free Telephone Line to Access Maternal and Newborn Health Services in Central Uganda: A Qualitative Study', *Public Health*, 179 (2020), 1–8 https://doi.org/https://doi.org/10.1016/j.puhe.2019.09.015

development of technological devices and digital media as a medium that has implications in social life.²⁶

The implications of digital technology in social life can be both an opportunity and a challenge in human life. These changes can influence and change individual human life patterns. These individual changes that occur collectively then change the social order in society.²⁷ Today, we see that the utilization of advances in communication and information technology is no longer limited to complementary or secondary needs but has become a primary need and creates a permanent dependence on human life. How do we see people of various ages of growth (millennial generation) who are preoccupied with the means of communication and information technology to fulfill their various needs.²⁸

Access to digital media has become so important in almost every aspect of human life. Face-to-face began to be shifted with Virtual Reality as a physical reality in line with Marc Prensky who described the post-21st century situation as a world filled with Net Savvy people. McLuhan then put forward the theory of technological determinism, that changes in the pattern of human social life are also caused by technological progress which is the result of human creation itself. According to him, changes in communication from technology have shaped the way of thinking, behaving, and moving from one technological era to another which ultimately fulfills human life.

The determinism of communication and information technology has clearly changed the mindset of humans today and has had a significant impact.²⁹ Technology on the one hand can have a positive impact, but on the other hand, it can also have a negative impact. One of the negative impacts of humans utilizing this technological advancement is to bring each other down, through control through slander and fake news for certain purposes. The survey results of the *Katadata* Insight Center (KIC) and the Ministry of Communication and Information Technology (*Kominfo*) show that there are still 11.9% of people who spread false information or hoaxes. In addition, the widespread access to digital technology has clearly led to paradigmatic changes in state life, especially democratic practices. This is in line with the contemporary political landscape that poses complex global

²⁶ Jan Mei Soon, 'Consumers' Awareness and Trust Toward Food Safety News on Social Media in Malaysia', *Journal of Food Protection*, 83.3 (2020), 452–59 https://doi.org/https://doi.org/10.4315/0362-028X.JFP-19-415

²⁷ Taewoo Nam, 'Freedom of Information Legislation and Its Impact on Press Freedom: A Cross-National Study', *Government Information Quarterly*, 29.4 (2012), 521–31 https://doi.org/10.1016/J.GIQ.2012.03.003

²⁸ S Hannah Nithya and Arun Sahayadhas, 'Meta-Heuristic Searched-Ensemble Learning for Fake News Detection with Optimal Weighted Feature Selection Approach', *Data and Knowledge Engineering*, 144 (2023) https://doi.org/10.1016/j.datak.2022.102124

²⁹ Agus Raharjo, Yusuf Saefudin, and Rini Fidiyani, 'The Influence of Technology Determinism in Forming Criminal Act of Legislation', *E3S Web of Conferences*, 73 (2018), 1–5 https://doi.org/10.1051/e3sconf/20187312011

challenges for democracy, shaped in part by the development of modern communication technologies.³⁰

The dissemination of information and freedom of opinion and expression are the cornerstones of democracy. Digital technologies allow citizens to voice their opinions more directly than ever before, creating more horizontal space than vertical, with equality and no hierarchy. According to the *GSoD* index data, the recent situation regarding freedom of expression and media integrity is worrying. Although there were achievements worldwide in the aspect of media integrity from the mid-1970s to the mid-1990s, this trend stagnated until 2012 and since then the situation has deteriorated especially regarding freedom of expression in democracies.³¹

Indonesia as a democratic country of law has an internet usage penetration that will reach 73.7% of the population by 2022. This causes Indonesia to be unable to escape the challenges of freedom of expression and media integrity. As evidenced by the 2020 Democracy Index data released by The Economist Intelligence Unit, Indonesia is ranked 64th out of 165 countries with a score of 6.30 points, which shows that Indonesia's democracy falls into the Flawed Democracy category with the lowest scores being Political Culture and Civil Liberties This category shows that Indonesia has conducted fair elections, but civil liberties are not sufficiently respected. Meanwhile, realizing substantive democracy is one of the important pillars in the vision of Indonesia's Development Year 2045. Substantive democracy takes the form of fundamental trust from the public to the government.³²

The practice of substantive democracy in cyberspace today shows a dilemma. Since the birth of the new Criminal Code in Indonesia, there have been dynamics that can erode the fundamental trust of the community where there are articles that are indicated to inhibit freedom of opinion and freedom of expression carried out by the community. Article 263 states that "Every person who broadcasts or disseminates news or notification knowing that the news or notification is false which results in unrest in the community, shall be punished with a maximum imprisonment of 6 (six) years or a maximum fine of category V (IDR 500 million),". On the one hand, according to the Press Council, the article is considered to potentially threaten press freedom. The existence of Article 263 of the National

³⁰ Robert Vanderplank, 'Native Speakers and Native Users: Loss and Gain', *System*, 44 (2014), 149–51 https://doi.org/https://doi.org/10.1016/j.system.2014.01.010

³¹ Yasir Riady and others, 'How Can We Assess the Success of Information Technologies in Digital Libraries? Empirical Evidence from Indonesia', *International Journal of Information Management Data Insights*, 3.2 (2023), 100192 https://doi.org/https://doi.org/10.1016/j.jjimei.2023.100192

³² Irwan Trinugroho and others, 'Adoption of Digital Technologies for Micro and Small Business in Indonesia', *Finance Research Letters*, 45 (2022), 102156 https://doi.org/https://doi.org/10.1016/j.frl.2021.102156

Criminal Code can be misinterpreted by law enforcement to carry out repressive efforts that curb freedom of speech.³³

Joshua Kleinfeld mentions three principles that follow from the unity of democracy and therefore should characterize a democratic society's approach to criminal justice. In the Indonesian context, it can be described as follows: First, The Moral Culture Principle of Criminalization, In Indonesia, which has a lot of diversity in ethnicity, religion, race, and class, one of the influences is the application of customary law, especially in regulating fake news and hoaxes. In Aceh, hoaxes are known through various local terms in the community. Terms such as "peusuna" and the perpetrator called "lalat mirah", are used by classifying the level of seriousness or not of the fake news. Handling and countering hoaxes is done through customary law mechanisms, using customary sanctions, and tried by functionaries of customary institutions. There is no customary justice mechanism that takes place outside formal customary institutions. A hoax spreader is sanctioned under Acehnese customary law, the type of which is determined by the seriousness of the hoax.³⁴

Meanwhile, in Hindu teachings speaking must be careful and guarded. Because speech can hurt other people's hearts. As stated in Nitisastra Sloka 65 as follows: "Wasita nimittanta manemu laksmi. Wasita nimittanta pati kapangguh. Wasita nimittanta momemu dukkha. Wasita nimittanta monemu mitra". From the explanation of the above, speaking is very important in social life. Therefore, in speaking, one must recognize the ethics of speaking. Ethics is part of the three frameworks of Hinduism in addition to tattwa and ceremony. In this era of increasingly massive development of information technology, all actions must be guarded. So as not to hurt or harm others. Therefore, a journalist who disseminates news must base on facts and delivered wisely. According to the Alliance of Independent Journalists, journalists are required to be professional, given the current condition of journalism which is always dealing with confusing information from various media, especially social media. It is not uncommon for mass media and journalists to get caught up in unclear information.³⁵

Second, The Principle of Prosocial Punishment. Punishment provides a response in accordance with the will of society. Not punitive or suffering or pain. Therefore,

³³ Tonni Agustiono Kurniawan and others, 'Unlocking Digital Technologies for Waste Recycling in Industry 4.0 Era: A Transformation towards a Digitalization-Based Circular Economy in Indonesia', *Journal of Cleaner Production*, 357 (2022), 131911 https://doi.org/https://doi.org/10.1016/j.jclepro.2022.131911

³⁴ Hesty Wulandari, 'Economy and Technology as Influential Factors for Digital Piracy Sustainability: An Indonesian Case', *Procedia - Social and Behavioral Sciences*, 164 (2014), 112–17 https://doi.org/https://doi.org/10.1016/j.sbspro.2014.11.058

³⁵ Purnomo Ananto and Sri Kusuma Ningsih, 'An Examination of Indonesian Teachers' and Students' Perception and Level of Digital Citizenship', *Heliyon*, 9.8 (2023), e18987 https://doi.org/https://doi.org/10.1016/j.heliyon.2023.e18987

this principle is in line with progressive legal thinking initiated by Satjipto Raharjo. For progressive legal science, the law is for humans, while in practical legal science, humans are more for law and legal logic. Herein lies the enlightenment of progressive legal science. Therefore, the regulation of fake news and hoax offenses in the new Criminal Code in its law enforcement must be oriented to the nature and purpose of the formation of the regulation itself. So that there are no repressive efforts against the press or curbing the freedom of the press itself. Given that the potential for repression and restraint of press freedom is very large. If examined closely, the description of Articles 263 and 263, the offense of broadcasting or spreading false news or notifications is punishable by a maximum of 6 years and fines in categories III, IV, and V. This allows for the settlement of cases using restorative justice. This allows for case resolution using restorative justice.³⁶

Third, The "We the People" Principle of Criminal Procedure. Criminal law enforcement requires a well-organized administration. For justice to be felt in real terms, the community must be involved. This is in accordance with the idea of responsive law which focuses more on results. The focus of responsive legislation is to achieve results that go beyond the boundaries of the law. Community involvement in the legislative process and evaluation in the implementation of Article 262 of the Criminal Code is very important to realize the objectives of regulating hoaxes and fake news.

The rapid dissemination of unverified information has become a critical concern. Indonesia has witnessed instances where fake news and hoaxes on social media have had real-world consequences, such as inciting violence or influencing public opinion. Many Indonesians may lack the digital literacy skills necessary to critically evaluate online information. Addressing this gap is essential to ensure responsible information dissemination. Government authorities have, on occasion, imposed censorship on online content. This includes restrictions on content deemed to be provocative or offensive, potentially impacting freedom of expression.³⁷v

Here are some recommendations that can be implemented in Indonesia to tackle fake new and hoaxes: First, Digital Literacy Programs. Develop and implement comprehensive digital literacy programs to equip Indonesians with the skills needed to critically evaluate online information; Second, Fact-Checking and Media Literacy. Support fact-checking organizations and promote media literacy to combat misinformation and fake news; Third, Transparent Regulation. Ensure that any regulations related to digital technology and freedom of expression are clear,

³⁶ Trinh Quang Long, Trang Cam Hoang, and Betty Simkins, 'Gender Gap in Digital Literacy across Generations: Evidence from Indonesia', *Finance Research Letters*, 58 (2023), 104588 https://doi.org/https://doi.org/10.1016/j.frl.2023.104588

³⁷ Nela Dharmayanti and others, 'Exploring Sustainability Management Control System and Eco-Innovation Matter Sustainable Financial Performance: The Role of Supply Chain Management and Digital Adaptability in Indonesian Context', *Journal of Open Innovation: Technology, Market, and Complexity*, 9.3 (2023), 100119 https://doi.org/https://doi.org/10.1016/j.joitmc.2023.100119

well-defined, and respect fundamental rights; Fourth, Strengthen Cybersecurity: Enhance cybersecurity measures to protect against cyberattacks and safeguard digital rights; Fifth, Encourage Platforms' Responsibility. Collaborate with social media and online platforms to develop policies and mechanisms for moderating content that strikes a balance between freedom of expression and preventing the spread of harmful misinformation.³⁸

Digital Technology Determinants of Information Dissemination and Freedom of Expression in Malaysia

There are currently at least 35 countries where their governments are acting against disinformation and misinformation, directly or indirectly.³⁹ However, the focus of the intervention may different foreign disinformation campaigns, election interference, hate speech, political bots, Deep Fakes and advertising, media literacy, or just misinformation in general.⁴⁰ Digital technology has provided new avenues for individuals to exercise their freedom of expression. Blogs, social media, and online forums have become prominent platforms for Malaysians to voice their opinions and engage in political discourse. Nevertheless, this newfound freedom is not without constraints. Content regulation, online harassment, and cyberbullying are also prevalent issues in the digital sphere.⁴¹ Fake news and hoaxes have become increasingly prevalent in the digital age, posing significant challenges for governments and societies around the world. Malaysia, like many other countries, has grappled with the spread of false information and misinformation through digital platforms. This analysis examines the regulatory measures and responses that Malaysia has employed to combat fake news and hoaxes.⁴²

In Malaysia, the regulation of hoaxes and fake news involves a combination of legal frameworks, government initiatives, and collaborative efforts. Malaysia has a legal framework that addresses fake news and hoaxes, primarily through existing laws. The primary legislation used to combat fake news and hoaxes includes the Communications and Multimedia Act 1998, the Sedition Act 1948, and the Penal Code. These laws are general and can be applied to various offenses, including

³⁸ Muhammad Luthfi Hidayat and others, 'Digital Competency Mapping Dataset of Pre-Service Teachers in Indonesia', *Data in Brief*, 49 (2023), 109310 https://doi.org/https://doi.org/10.1016/j.dib.2023.109310

³⁹ Li Wang, 'An Information Literacy Integration Model and Its Application in Higher Education', *Reference Services Review*, 39.4 (2011), 703–20 https://doi.org/10.1108/00907321111186703

⁴⁰ Qianxiu Liu, 'Information Literacy and Recent Graduates: Motivation, Self-Efficacy, and Perception of Credit-Based Information Literacy Courses', *Journal of Academic Librarianship*, 49.3 (2023) https://doi.org/10.1016/j.acalib.2023.102682

⁴¹ Siti Norida Wahab, Jagroop Singh, and Nikram Subramaniam, 'Telemedicine Implementation Framework for Malaysia: An Integrated SWOT-MCDM Approach', *Health Policy and Technology*, 12.4 (2023), 100818 https://doi.org/https://doi.org/10.1016/j.hlpt.2023.100818

⁴² Daisy Mui Hung Kee, Aizza Anwar, and Ivana Vranjes, 'Cyberbullying Victimization and Suicide Ideation: The Mediating Role of Psychological Distress among Malaysian Youth', Computers in Human Behavior, 150 (2024), 108000 https://doi.org/https://doi.org/10.1016/j.chb.2023.108000

those related to false information dissemination.⁴³ In April 2018, Malaysia introduced the Anti-Fake News Act, a specific law aimed at curbing fake news. This law faced criticism from various quarters, with concerns that it could be used to stifle legitimate free expression. However, it was repealed in August 2018 after a change in government. The repeal signaled a shift towards more nuanced and potentially less restrictive approaches to dealing with fake news.⁴⁴

Following the repeal of the Anti-Fake News Act, the Malaysian government established the National Council of Anti-Fake News. The council, however, has limited enforcement powers but primarily functions as a platform for raising awareness and educating the public about the dangers of fake news. Malaysia's Communication and Multimedia Content Forum (CMCF) plays a role in regulating content, including the identification and removal of fake news. Media organizations and digital platforms are encouraged to adhere to a self-regulatory code of ethics. However, this approach relies on voluntary compliance and cooperation, which can be challenging to enforce effectively.⁴⁵

Regulating fake new and hoaxes has concerns and challenges, including: First, Freedom of Expression. A major concern surrounding fake news regulation in Malaysia is the potential impact on freedom of expression. There is a fine balance between combating fake news and safeguarding citizens' right to express their views and opinions. The Anti-Fake News Act, in particular, was criticized for its potential to be misused for political purposes; Second, Lack of Clarity. The absence of a specific, comprehensive framework for regulating fake news has led to ambiguity and inconsistency in enforcement. This lack of clarity can be exploited and create legal uncertainty; Third, Effectiveness: The effectiveness of Malaysia's regulatory measures remains questionable, as fake news continues to circulate, often adapting to evolving digital platforms and strategies; Fourth, social media and online platforms: A significant challenge is the role of social media and online platforms in the dissemination of fake news. The responsibility of these platforms in monitoring and regulating content is still a topic of debate.⁴⁶

⁴³ Nursyuhada' Kamaruzaman and others, 'Assessing the Current State of Biomass Gasification Technology in Advancing Circular Economies: A Holistic Analysis from Techno-Economic-Policy Perspective in Malaysia and Beyond', *Chemical Engineering Research and Design*, 199 (2023), 593–619 https://doi.org/https://doi.org/10.1016/j.cherd.2023.10.023

⁴⁴ Asif Raihan, 'Economy-Energy-Environment Nexus: The Role of Information and Communication Technology towards Green Development in Malaysia', *Innovation and Green Development*, 2.4 (2023), 100085 https://doi.org/https://doi.org/10.1016/j.igd.2023.100085

⁴⁵ Md Sharif Hassan and others, 'Users' Fintech Services Acceptance: A Cross-Sectional Study on Malaysian Insurance & Takaful Industry', Heliyon, 9.11 (2023), e21130 https://doi.org/10.1016/j.heliyon.2023.e21130

⁴⁶ Fatimah Mat Johar and others, 'Prevention of Firecracker Injuries via the Digital Platform: A Malaysian Experience', *Burns*, 47.7 (2021), 1683–87 https://doi.org/10.1016/j.burns.2021.02.007

Thus, we can know that the criminalization of fake news in Indonesia reflects a broader effort to address the challenges posed by the rapid spread of false information in the digital age.⁴⁷ The nature and purpose of criminalizing fake news in Indonesia can be understood in the context of protecting public order, public welfare, and democratic values. This is in line with substantive justice principles that focus on how legal systems use law to constrain and direct human behavior, specifically focusing on the function and structure of law.⁴⁸

Technological Forces and Legal Evolution for Tackling Fake News and Hoax: Strategies and Solutions

Hoaxes and Fakenews are a problem in many countries. Various papers from around the world have highlighted this issue. The papers below collectively address the research question of how to tackle fake news and hoaxes through the power of technology and the evolution of law. They highlight the challenges posed by the spread of fake news and the need for comprehensive solutions. Gupta⁴⁹ discusses the use of AI algorithms and social network analysis to detect and control fake news, while M 2023 emphasizes the importance of a holistic approach involving individuals, news organizations, social media platforms, government agencies, and society. Andorfer focuses on the role of technological control and government regulation in combating fake news on social media platforms. Overall, these papers emphasize the detrimental impact of fake news and the need for collective efforts, technological interventions, and legal measures to address the issue.

The proliferation of fake news in the digital age has become a global concern, necessitating innovative strategies to uncover the origins of misinformation.⁵⁰ In the distinct contexts of Indonesia and Malaysia, the importance of digital forensics in identifying the sources of fake news takes center stage. This comparative analysis explores the role of digital forensics and the challenges involved in exposing the culprits behind fake news in these two Southeast Asian nations. Before delving into the specifics of digital forensics in Indonesia and Malaysia, it is crucial to understand the broader digital forensics landscape. Digital forensics involves the use of techniques, tools, and methodologies to examine and preserve

⁴⁷ Suriyani Muhamad and others, 'Digital Adoption by Enterprises in Malaysian Industrial Sectors during COVID-19 Pandemic: A Data Article', *Data in Brief*, 37 (2021), 107197 https://doi.org/10.1016/j.dib.2021.107197

⁴⁸ Tyrone Kirchengast, 'Beyond Normative Constraints: Declining Institutionalism and the Emergence of Substantive and Procedural Justice', *International Journal of Law, Crime and Justice*, 41.4 (2013), 292–302 https://doi.org/10.1016/J.IJLCJ.2013.07.005

⁴⁹ Ankur Gupta and others, 'Combating Fake News: Stakeholder Interventions and Potential Solutions', *IEEE Access*, 10 (2022), 78268–89 https://doi.org/10.1109/ACCESS.2022.3193670

⁵⁰ Deddy Satria M and Hairunnisa, 'The Phenomenon of Fake News (Hoax) in Mass Communication: Causes, Impacts, and Solutions', *Open Access Indonesia Journal of Social Sciences*, 6.3 (2023), 980–88 https://doi.org/10.37275/oaijss.v6i3.161

digital evidence for investigative purposes. It plays a pivotal role in modern law enforcement and investigative efforts.⁵¹

As explained in the previous chapter above, Indonesia, a diverse and populous nation, has witnessed a rise in fake news with significant consequences. Numerous case studies highlight the pervasive nature of misinformation, with hoaxes ranging from political fabrications to health-related conspiracy theories. Challenges in combating fake news in Indonesia include the country's linguistic diversity and the rapid spread of information through social media. Meanwhile, Malaysia has its own set of challenges in dealing with fake news. The nation has experienced political turmoil exacerbated by the spread of misinformation. Cases of false narratives being propagated on various platforms have added to social and political tensions. Identifying the sources of these falsehoods is essential for maintaining stability.

Digital forensics is instrumental in the task of identifying the origins of fake news.⁵² This discipline involves a range of techniques, including the analysis of technical evidence, metadata examination, and tracking data trails. By applying these methods, investigators can pinpoint those responsible for creating and disseminating false information. Both Indonesia and Malaysia have seen successes in using digital forensics to uncover the sources of fake news. Investigations have led to the identification and prosecution of individuals and groups responsible for spreading false narratives. Such instances underscore the practical importance of digital forensics in addressing the fake news dilemma.

Despite its significance, digital forensics is not without its challenges and limitations. Ethical concerns regarding privacy and data access must be carefully navigated.⁵³ Moreover, the ever-evolving nature of misinformation presents technological challenges, while legal obstacles can impede cross-border investigations. A comparative analysis of the two nations' approaches to digital forensics for identifying the origins of fake news reveals both similarities and differences. While both countries face linguistic and cultural diversity, their legal and regulatory frameworks differ, influencing the efficacy of digital forensics in each context. This comparison offers valuable insights into how different approaches impact the fight against fake news.

⁵¹ Sakshi Dhall and others, 'Blockchain-Based Framework for Reducing Fake or Vicious News Spread on Social Media/Messaging Platforms', *ACM Transactions on Asian and Low-Resource Language Information Processing*, 21.1 (2022), 1–33 https://doi.org/10.1145/3467019

⁵² Alvaro Figueira, Nuno Guimaraes, and Luis Torgo, 'Current State of the Art to Detect Fake News in Social Media: Global Trendings and Next Challenges', in *Proceedings of the 14th International Conference on Web Information Systems and Technologies* (SCITEPRESS - Science and Technology Publications, 2018), pp. 332–39 https://doi.org/10.5220/0007188503320339

⁵³ Rebecca K Helm and Hitoshi Nasu, 'Regulatory Responses to "Fake News" and Freedom of Expression: Normative and Empirical Evaluation', *Human Rights Law Review*, 21.2 (2021), 302–28 https://doi.org/10.1093/hrlr/ngaa060

The importance of digital forensics in identifying the origins of fake news in Indonesia and Malaysia cannot be overstated. It serves as a crucial tool for investigating and prosecuting those responsible for spreading misinformation. By understanding the unique challenges and opportunities in each country, we can better appreciate the significance of digital forensics in the global battle against fake news. Looking ahead, emerging technologies and methodologies in digital forensics hold the promise of improved effectiveness in uncovering the origins of fake news. Policymakers and law enforcement agencies in Indonesia and Malaysia should consider recommendations and lessons learned from this comparative analysis. Encouraging ongoing research and international collaboration in the field of digital forensics is essential for addressing the evolving challenges of misinformation in the digital age.

4. Conclusion

In Indonesia, the digital revolution has fundamentally reshaped the way information is accessed and shared. The country's diverse population, coupled with a rapidly growing internet user base, has created an environment where digital technology plays a pivotal role in shaping public discourse. However, this newfound freedom of expression is not without challenges. Legal frameworks and regulations, as well as concerns about privacy, have raised questions about the balance between combating fake news and safeguarding freedom of expression. The country is also grappling with the need to bridge digital divides, enhance digital literacy, and encourage responsible information dissemination. Similarly, in Malaysia, digital technology has empowered individuals to voice their opinions through various online platforms. However, the regulation of fake news and hoaxes poses a significant challenge, as it necessitates a fine balance between combating misinformation and preserving freedom of expression. The Anti-Fake News Act, which was introduced and subsequently repealed, exemplifies the need for nuanced and less restrictive approaches to tackling fake news. Malaysia's regulatory measures, including the Communication and Multimedia Content Forum (CMCF), rely on voluntary compliance and cooperation, which can be challenging to enforce effectively. Social media and online platforms also play a crucial role in the dissemination of fake news, further complicating the regulatory landscape. The importance of digital forensics in identifying the origins of fake news in both Indonesia and Malaysia is undeniable. Digital forensics methods have proven successful in investigations that led to the identification and prosecution of those responsible for spreading false narratives. While ethical and legal challenges persist, the comparative analysis provides valuable insights into the similarities and differences in the two countries' approaches to digital forensics.

References

- Ananto, Purnomo, and Sri Kusuma Ningsih, 'An Examination of Indonesian Teachers' and Students' Perception and Level of Digital Citizenship', *Heliyon*, 9.8 (2023), e18987 https://doi.org/https://doi.org/10.1016/j.heliyon.2023.e18987
- Ashley, Seth, Adam Maksl, and Stephanie Craft, 'Developing a News Media Literacy Scale', *Journalism and Mass Communication Educator*, 68.1 (2013), 7–21 https://doi.org/10.1177/1077695812469802
- Castelblanco, Alejandra, Esteban Rivera, Jesús Solano, Lizzy Tengana, Christian López, and Martín Ochoa, 'Dynamic Face Authentication Systems: Deep Learning Verification for Camera Close-Up and Head Rotation Paradigms', Computers and Security, 115 (2022) https://doi.org/10.1016/j.cose.2022.102629
- Dhall, Sakshi, Ashutosh Dhar Dwivedi, Saibal K. Pal, and Gautam Srivastava, 'Blockchain-Based Framework for Reducing Fake or Vicious News Spread on Social Media/Messaging Platforms', ACM Transactions on Asian and Low-Resource Language Information Processing, 21.1 (2022), 1–33 https://doi.org/10.1145/3467019
- Dharmayanti, Nela, Tubagus Ismail, Imam Abu Hanifah, and Muhamad Taqi, 'Exploring Sustainability Management Control System and Eco-Innovation Matter Sustainable Financial Performance: The Role of Supply Chain Management and Digital Adaptability in Indonesian Context', *Journal of Open Innovation: Technology, Market, and Complexity*, 9.3 (2023), 100119 https://doi.org/https://doi.org/10.1016/j.joitmc.2023.100119
- Dida, Susanne, Hanny Hafiar, Anissa Lestari Kadiyono, and Syauqy Lukman, 'Gender, Education, and Digital Generations as Determinants of Attitudes toward Health Information for Health Workers in West Java, Indonesia', *Heliyon*, 7.1 (2021), e05916 https://doi.org/https://doi.org/10.1016/j.heliyon.2021.e05916
- Figueira, Alvaro, Nuno Guimaraes, and Luis Torgo, 'Current State of the Art to Detect Fake News in Social Media: Global Trendings and Next Challenges', in *Proceedings of the 14th International Conference on Web Information Systems and Technologies* (SCITEPRESS Science and Technology Publications, 2018), pp. 332–39 https://doi.org/10.5220/0007188503320339
- Friedman, Susan Hatters, 'Searching for the Whole Truth: Considering Culture and Gender in Forensic Psychiatric Practice', *Journal of the American Academy of Psychiatry and the Law*, 51.1 (2023), 23–34 https://doi.org/10.29158/JAAPL.220114-22
- Goldstein, Benjamin A., Ann Marie Navar, Michael J. Pencina, and John P.A. Ioannidis, 'Opportunities and Challenges in Developing Risk Prediction Models with Electronic Health Records Data: A Systematic Review', *Journal of the*

- American Medical Informatics Association, 24.1 (2017), 198–208 https://doi.org/10.1093/JAMIA/OCW042
- Guerola-Navarro, Vicente, Doina Stratu-Strelet, Dolores Botella-Carrubi, and Hermenegildo Gil-Gomez, 'Media or Information Literacy as Variables for Citizen Participation in Public Decision-Making? A Bibliometric Overview', Sustainable Technology and Entrepreneurship, 2.1 (2023), 100030 https://doi.org/10.1016/J.STAE.2022.100030
- Gupta, Ankur, Neeraj Kumar, Purnendu Prabhat, Rajesh Gupta, Sudeep Tanwar, Gulshan Sharma, and others, 'Combating Fake News: Stakeholder Interventions and Potential Solutions', *IEEE Access*, 10 (2022), 78268–89 https://doi.org/10.1109/ACCESS.2022.3193670
- Hannah Nithya, S, and Arun Sahayadhas, 'Meta-Heuristic Searched-Ensemble Learning for Fake News Detection with Optimal Weighted Feature Selection Approach', *Data and Knowledge Engineering*, 144 (2023) https://doi.org/10.1016/j.datak.2022.102124
- Hassan, Md Sharif, Md Aminul Islam, Mohd Faizal Yusof, and Hussen Nasir, 'Users' Fintech Services Acceptance: A Cross-Sectional Study on Malaysian Insurance & Takaful Industry', *Heliyon*, 9.11 (2023), e21130 https://doi.org/https://doi.org/10.1016/j.heliyon.2023.e21130
- Helm, Rebecca K, and Hitoshi Nasu, 'Regulatory Responses to "Fake News" and Freedom of Expression: Normative and Empirical Evaluation', *Human Rights Law Review*, 21.2 (2021), 302–28 https://doi.org/10.1093/hrlr/ngaa060
- Hidayat, Muhammad Luthfi, Hariyatmi, Dwi Setyo Astuti, Bambang Sumintono, Maram Meccawy, and Tariq J S Khanzada, 'Digital Competency Mapping Dataset of Pre-Service Teachers in Indonesia', *Data in Brief*, 49 (2023), 109310 https://doi.org/https://doi.org/10.1016/j.dib.2023.109310
- Jang, S Mo, and Joon K Kim, 'Third Person Effects of Fake News: Fake News Regulation and Media Literacy Interventions', *Computers in Human Behavior*, 80 (2018), 295–302 https://doi.org/10.1016/J.CHB.2017.11.034
- Kamaruzaman, Nursyuhada', Norhuda Abdul Manaf, Dia Milani, and Ali Abbas, 'Assessing the Current State of Biomass Gasification Technology in Advancing Circular Economies: A Holistic Analysis from Techno-Economic-Policy Perspective in Malaysia and Beyond', *Chemical Engineering Research and Design*, 199 (2023), 593–619 https://doi.org/https://doi.org/10.1016/j.cherd.2023.10.023
- Kee, Daisy Mui Hung, Aizza Anwar, and Ivana Vranjes, 'Cyberbullying Victimization and Suicide Ideation: The Mediating Role of Psychological Distress among Malaysian Youth', Computers in Human Behavior, 150 (2024), 108000 https://doi.org/https://doi.org/10.1016/j.chb.2023.108000

- Khan, Tanveer, Antonis Michalas, and Adnan Akhunzada, 'Fake News Outbreak 2021: Can We Stop the Viral Spread?', *Journal of Network and Computer Applications*, 190 (2021), 103112 https://doi.org/https://doi.org/10.1016/j.jnca.2021.103112
- Kirchengast, Tyrone, 'Beyond Normative Constraints: Declining Institutionalism and the Emergence of Substantive and Procedural Justice', *International Journal of Law, Crime and Justice*, 41.4 (2013), 292–302 https://doi.org/10.1016/J.IJLCJ.2013.07.005
- Kurnia, Septiawan Santana, Engkus Kuswarno, Eni Maryani, and Firmansyah, 'The Characteristics of Investigative News Organizations in Indonesia between 2010-2012', *Heliyon*, 7.2 (2021), e06276 https://doi.org/https://doi.org/10.1016/j.heliyon.2021.e06276
- Kurniawan, Tonni Agustiono, Mohd Hafiz Dzarfan Othman, Goh Hui Hwang, and Petros Gikas, 'Unlocking Digital Technologies for Waste Recycling in Industry 4.0 Era: A Transformation towards a Digitalization-Based Circular Economy in Indonesia', *Journal of Cleaner Production*, 357 (2022), 131911 https://doi.org/https://doi.org/10.1016/j.jclepro.2022.131911
- Kwartanada, Didi, 'Language Ungoverned: Indonesia's Chinese Print Entrepreneurs, by Tom G. Hoogervorst', *Bijdragen Tot de Taal-, Land- En Volkenkunde / Journal of the Humanities and Social Sciences of Southeast Asia*, 178.4 (2022), 512–15 https://doi.org/https://doi.org/10.1163/22134379-17804004
- Liu, Qianxiu, 'Information Literacy and Recent Graduates: Motivation, Self-Efficacy, and Perception of Credit-Based Information Literacy Courses', *Journal of Academic Librarianship*, 49.3 (2023) https://doi.org/10.1016/j.acalib.2023.102682
- Long, Trinh Quang, Trang Cam Hoang, and Betty Simkins, 'Gender Gap in Digital Literacy across Generations: Evidence from Indonesia', *Finance Research Letters*, 58 (2023), 104588 https://doi.org/https://doi.org/10.1016/j.frl.2023.104588
- Luna, Sergio, and Michael J Pennock, 'Social Media Applications and Emergency Management: A Literature Review and Research Agenda', *International Journal of Disaster Risk Reduction*, 28 (2018), 565–77 https://doi.org/https://doi.org/10.1016/j.ijdrr.2018.01.006
- M, Deddy Satria, and Hairunnisa, 'The Phenomenon of Fake News (Hoax) in Mass Communication: Causes, Impacts, and Solutions', *Open Access Indonesia Journal of Social Sciences*, 6.3 (2023), 980–88 https://doi.org/10.37275/oaijss.v6i3.161
- Mat Johar, Fatimah, Ahmad Sukari Halim, Wan Azman Wan Sulaiman, and Halimah Muhamad, 'Prevention of Firecracker Injuries via the Digital Platform: A Malaysian Experience', *Burns*, 47.7 (2021), 1683–87 https://doi.org/https://doi.org/10.1016/j.burns.2021.02.007

- Mihailidis, Paul, and Samantha Viotty, 'Spreadable Spectacle in Digital Culture: Civic Expression, Fake News, and the Role of Media Literacies in "Post-Fact" Society', *American Behavioral Scientist*, 61.4 (2017), 441–54 https://doi.org/10.1177/0002764217701217
- Molina, Rocío Galarza, 'Youth in the Face of Disinformation: A Qualitative Exploration of Mexican College Students' Attitudes, Motivations, and Abilities around False News', *Communication and Society*, 36.2 (2023), 97–113 https://doi.org/10.15581/003.36.2.97-113
- Muhamad, Suriyani, Suhal Kusairi, Mustafa Man, Nur Fatma Hasni Majid, and Wan Zulkifli Wan Kassim, 'Digital Adoption by Enterprises in Malaysian Industrial Sectors during COVID-19 Pandemic: A Data Article', *Data in Brief*, 37 (2021), 107197 https://doi.org/https://doi.org/10.1016/j.dib.2021.107197
- Mwase, I, M Hutchins, A Cameron, M Ware, J F Nakanwagi, E Nakabembe, and others, 'Experiences of Using the Toll-Free Telephone Line to Access Maternal and Newborn Health Services in Central Uganda: A Qualitative Study', *Public Health*, 179 (2020), 1–8 https://doi.org/https://doi.org/10.1016/j.puhe.2019.09.015
- Nam, Taewoo, 'Freedom of Information Legislation and Its Impact on Press Freedom: A Cross-National Study', *Government Information Quarterly*, 29.4 (2012), 521–31 https://doi.org/10.1016/J.GIQ.2012.03.003
- Nayoga, Bagas Pradipabista, Ryan Adipradana, Ryan Suryadi, and Derwin Suhartono, 'Hoax Analyzer for Indonesian News Using Deep Learning Models', *Procedia Computer Science*, 179 (2021), 704–12 https://doi.org/https://doi.org/10.1016/j.procs.2021.01.059
- Purnomo, Mauridhi Hery, Surya Sumpeno, Esther Irawati Setiawan, and Diana Purwitasari, 'Keynote Speaker II: Biomedical Engineering Research in the Social Network Analysis Era: Stance Classification for Analysis of Hoax Medical News in Social Media', *Procedia Computer Science*, 116 (2017), 3–9 https://doi.org/https://doi.org/10.1016/j.procs.2017.10.049
- Raharjo, Agus, Rahadi Wasi Bintoro, Nurani Ajeng, Tri Utami, and Masahiro Suzuki, 'The Legal Policy of Criminal Justice Bureaucracy Cybercrime', *Bestuur*, 10.2 (2022), 105–22 https://doi.org/https://doi.org/10.20961/bestuur.v10i2.64498
- Raharjo, Agus, Yusuf Saefudin, and Rini Fidiyani, 'The Influence of Technology Determinism in Forming Criminal Act of Legislation', *E3S Web of Conferences*, 73 (2018), 1–5 https://doi.org/10.1051/e3sconf/20187312011
- Raihan, Asif, 'Economy-Energy-Environment Nexus: The Role of Information and Communication Technology towards Green Development in Malaysia', *Innovation and Green Development*, 2.4 (2023), 100085 https://doi.org/https://doi.org/10.1016/j.igd.2023.100085

- Riady, Yasir, Muhammad Sofwan, Mailizar Mailizar, Turki Mesfer Alqahtani, Lalu Nurul Yaqin, and Akhmad Habibi, 'How Can We Assess the Success of Information Technologies in Digital Libraries? Empirical Evidence from Indonesia', *International Journal of Information Management Data Insights*, 3.2 (2023), 100192 https://doi.org/https://doi.org/10.1016/j.jjimei.2023.100192
- Roberts, Paul, 'Renegotiating Forensic Cultures: Between Law, Science and Criminal Justice', Studies in History and Philosophy of Science Part C: Studies in History and Philosophy of Biological and Biomedical Sciences, 44.1 (2013), 47–59 https://doi.org/10.1016/J.SHPSC.2012.09.010
- Roy, Ananya, Stuart Schrader, and Emma Shaw Crane, "The Anti-Poverty Hoax": Development, Pacification, and the Making of Community in the Global 1960s', *Cities*, 44 (2015), 139–45 https://doi.org/https://doi.org/10.1016/j.cities.2014.07.005
- Rusmanto, Toto, and Citra Williams, 'Compliance Evaluation on CSR Activities Disclosure in Indonesian Publicly Listed Companies', *Procedia Social and Behavioral Sciences*, 172 (2015), 150–56 https://doi.org/10.1016/J.SBSPRO.2015.01.348
- Scheufele, Dietram A., and Nicole M. Krause, 'Science Audiences, Misinformation, and Fake News', *Proceedings of the National Academy of Sciences of the United States of America*, 116.16 (2019), 7662–69 https://doi.org/10.1073/PNAS.1805871115
- Shader, Richard I, 'Troublesome News, Fake News, Biased or Incomplete News', Clinical Therapeutics, 40.9 (2018), 1429–34 https://doi.org/https://doi.org/10.1016/j.clinthera.2018.08.003
- Soon, Jan Mei, 'Consumers' Awareness and Trust Toward Food Safety News on Social Media in Malaysia', *Journal of Food Protection*, 83.3 (2020), 452–59 https://doi.org/https://doi.org/10.4315/0362-028X.JFP-19-415
- Sukabdi, Zora A, 'Bridging the Gap: Contributions of Academics and National Security Practitioners to Counterterrorism in Indonesia', *International Journal of Law, Crime and Justice*, 65 (2021), 100467 https://doi.org/https://doi.org/10.1016/j.ijlcj.2021.100467
- Trinugroho, Irwan, Putra Pamungkas, Jamal Wiwoho, Sylviana Maya Damayanti, and Teddie Pramono, 'Adoption of Digital Technologies for Micro and Small Business in Indonesia', *Finance Research Letters*, 45 (2022), 102156 https://doi.org/https://doi.org/10.1016/j.frl.2021.102156
- Vanderplank, Robert, 'Native Speakers and Native Users: Loss and Gain', *System*, 44 (2014), 149–51 https://doi.org/https://doi.org/10.1016/j.system.2014.01.010
- Vrontis, Demetris, Evangelia Siachou, Georgia Sakka, Sheshadri Chatterjee, Ranjan Chaudhuri, and Arka Ghosh, 'Societal Effects of Social Media in Organizations:

- Reflective Points Deriving from a Systematic Literature Review and a Bibliometric Meta-Analysis', *European Management Journal*, 40.2 (2022), 151–62 https://doi.org/https://doi.org/10.1016/j.emj.2022.01.007
- Wahab, Siti Norida, Jagroop Singh, and Nikram Subramaniam, 'Telemedicine Implementation Framework for Malaysia: An Integrated SWOT-MCDM Approach', *Health Policy and Technology*, 12.4 (2023), 100818 https://doi.org/https://doi.org/10.1016/j.hlpt.2023.100818
- Wang, Li, 'An Information Literacy Integration Model and Its Application in Higher Education', *Reference Services Review*, 39.4 (2011), 703–20 https://doi.org/10.1108/00907321111186703
- Wijayanti, Redhita Putri, Putu Wuri Handayani, and Fatimah Azzahro, 'Intention to Seek Health Information on Social Media in Indonesia', *Procedia Computer Science*, 197 (2022), 118–25 https://doi.org/https://doi.org/10.1016/j.procs.2021.12.125
- Wisniewski, Tomasz Piotr, 'Is There a Link between Politics and Stock Returns? A Literature Survey', *International Review of Financial Analysis*, 47 (2016), 15–23 https://doi.org/https://doi.org/10.1016/j.irfa.2016.06.015
- Wulandari, Hesty, 'Economy and Technology as Influential Factors for Digital Piracy Sustainability: An Indonesian Case', *Procedia Social and Behavioral Sciences*, 164 (2014), 112–17 https://doi.org/https://doi.org/10.1016/j.sbspro.2014.11.058
- Yulianto, Edy, Dita A Yusanta, Prahastiwi Utari, and Ignatius Agung Satyawan, 'Community Adaptation and Action during the Emergency Response Phase: Case Study of Natural Disasters in Palu, Indonesia', *International Journal of Disaster Risk Reduction*, 65 (2021), 102557 https://doi.org/https://doi.org/10.1016/j.ijdrr.2021.102557