

NYIMAK

Journal of Communication

Nyimak Journal of Communication | Vol. 8 | No. 2 | Pages 121- 336 | September 2024 | ISSN 2580-3808



Published By:
Department of Communication Science
Faculty of Social and Political Science
Universitas Muhammadiyah Tangerang

Journal Address

Program Studi Ilmu Komunikasi Fakultas Ilmu Sosial dan Ilmu Politik
UNIVERSITAS MUHAMMADIYAH TANGERANG
Jl. Perintis Kemerdekaan I No. 33 Kota Tangerang, Banten 15118
Website : <http://jurnal.umt.ac.id/index.php/nyimak>
Email : journalnyimak@fisipumt.ac.id

NYIMAK

Journal of Communication

DAFTAR ISI (TABLE OF CONTENT)

Disaster Communication in Sleman Regency: Evaluating the SIMANTAB Application's Implementation and Impact — Adhianty Nurjanah, Nano Prawoto, Riski Apriliani, Chalila Raihan Nabilazka —	121 - 136
Transformative Governance: Utilizing Social Media Dynamics to Improve Public Service Implementation in the Digital Age in Indonesia — Mella Syaftiani, Achmad Nurmandi, Misran, Muhammad Younus —	137 - 156
Multicultural CSR Communication for Achieving a Sustainable Environment — Riski Apriliani, Rona Rizkhy Bunga Cassana, Khanun Roisatul Ummah, Dinda Safitri Ramadhani, Nando Alhasanain —	157 - 170
Unveiling the Hidden Struggles: Political Violence Against Women Through the Lens of Standpoint Theory — Umaimah, Mohamad Zahir Zainudin, Eko Sumardi, Muhammad Akbar, Ryanka Dizayani Putra —	171 - 198
Unmasking the Network: The Power Dynamics Behind the Social Movement Against Election Postponement — Evie Ariadne Shinta Dewi, Diyaulmuhana, Benazir Bona Pratamawaty —	199 - 222

Characteristics, Role of Social Media and Self Esteem of victims in Cyberbullying Cases in Indonesia — Dasrun Hidayat, Risti Nur, Almauri Saputri, Novel Lyndon, Leili Kurnia Gustini —	223 - 240
Trends in Digital Transformation for Multicultural E- Government Communication: A Bibliometric Analysis Using Citespace — Ahmad Muhardin Hadmar, Achmad Nurmandi, Anwar Sadat, Mohammad Jafar Loilatu, Adil Hassan Ibrahim —	241 - 260
Addressing Implementation Challenges of Minimum Service Standards in Local Government Using Soft System Methodology: A Case Study of Bekasi City, Indonesia — Maharina Desimaria, Amy Yayuk Sri Rahayu, Junarti, Reni Novia —	261 - 282
Communication Dynamics and Elite Perceptions: Assessing Government Policy Effectiveness in Sumberglagah Leprosy Village, Indonesia — Endik Hidayat, Daniel Susilo, Rahmat Hussein Andri Ansyah, Carl C.G. Dizon —	283 - 298
Political Marketing and Identity Politics: Implications for Voter Engagement and Interest — Riska Sarofah, Nauval Trian Putra, Herdin Arie Saputra —	299 - 310
Communicating Cultural Instituion: A Treatise of Indonesian Ulama in Different Technological Eras — Rachmat Baihaky, Lisma Dyawati Fuaida —	311 - 336

Trends in Digital Transformation for Multicultural E-Government Communication: A Bibliometric Analysis Using Citespace

Ahmad Muhardin Hadmar¹, Achmad Nurmandi², Anwar Sadat³, Mohammad Jafar Loilatu⁴, Adil Hassan Ibrahim⁵

^{1,2}Department of Government Affairs and Administration, Universitas Muhammadiyah Yogyakarta, Yogyakarta,

³Department of Government Studies, Universitas Muhammadiyah Buton, Bau-Bau

⁴Department of Government Studies, Universitas Muhammadiyah Malang, Malang

⁵Department of Public Administration, University of Bahri-Sudan, Sudan

Email: ¹ahmadmuhardin@gmail.com, ²achmad@umy.ac.id, ³anwarsadat685@gmail.com, ⁴jafar.loilatu@gmail.com, ⁵adil.hassan@bahri.edu.sd

Abstract

Digital transformation in public services is essential for enhancing government performance and modernizing systems. In the realm of multicultural communication, it's crucial that technology is both technically effective and culturally inclusive. This research analyzes trends in digital government transformation from 2018 to 2022, revealing 340 indexed research articles in the Scopus database. Using qualitative research and bibliometric analysis with CiteSpace software, the study examines publications based on the number of articles, contributing countries, fields of study, authors, affiliated institutions, and citation counts. The findings indicate a rising trend in publications, with computer science as a core discipline. Digital organizational resilience emerges as a dominant topic, emphasizing the need for governments to adapt to technological changes effectively. The University of the Aegean is noted as a leading institution, while Draheim has the highest contribution level, and Russia is identified as the most prolific contributing country. The implications suggest that for successful digital transformation, governments must prioritize inclusivity and cultural sensitivity in their technology strategies. This research contributes to understanding how multicultural communication can enhance digital initiatives and emphasizes the importance of considering all societal segments in policy development. Ultimately, the findings lay a foundation for developing a more inclusive government through sustainable technology and recognition of cultural diversity, enabling better engagement and service delivery to diverse communities.

Keywords: Bibliometric Analysis, CiteSpace, Digital Transformation, E-Government, Multicultural Communication.

Abstrak

Transformasi digital dalam pelayanan publik merupakan langkah untuk meningkatkan kinerja pemerintahan dan modernisasi sistem pemerintahan. Dalam konteks komunikasi multikultural, penting untuk memastikan bahwa teknologi tidak hanya efektif secara teknis namun juga inklusif secara budaya. Penelitian ini menganalisis tren transformasi pemerintahan digital dalam lima tahun terakhir, yaitu pada tahun 2018 hingga 2022. Temuannya, terdapat 340 artikel penelitian tentang transformasi pemerintahan digital yang terindeks di database Scopus. Metode yang digunakan adalah penelitian kualitatif dengan pendekatan studi literatur. Penelitian ini menerapkan analisis bibliometrik menggunakan software CiteSpace. Selanjutnya makalah disajikan berdasarkan jumlah publikasi, negara kontributor, bidang studi, penulis, institusi afiliasi, isu terkait, dan sitasi tinggi. Penelitian ini menunjukkan tren publikasi yang meningkat, dengan ilmu komputer menjadi disiplin inti dalam penelitian ini. Melalui analisis beberapa sumber, ketahanan organisasi digital menjadi trending topik yang dominan. Selain itu, Universitas Aegean adalah institusi terkemuka. Draheim merupakan penulis dengan tingkat kontribusi tertinggi, namun Rusia menjadi negara yang memberikan kontribusi paling besar. Pada akhirnya, hasil penelitian tersebut menjadi preferensi untuk mengembangkan pemerintahan yang lebih inklusif dengan menerapkan teknologi berkelanjutan dan mempertimbangkan keberagaman budaya.

Citation : Hadmar, Nurmandi, Anwar, Loilatu, Ibrahim. (2024). "Trends in Digital Transformation for Multicultural E-Government Communication: A Bibliometric Analysis Using Citespace". *Nyimak: Journal of Communication*, 8(2), 241-260.



Kata Kunci: Analisis Bibliometrik, CiteSpace, Transformasi Digital, E-Government, Komunikasi Multikultural.

INTRODUCTION.

Digital transformation is a key driver of change in government to improve transparency, accountability, and efficiency of public services (Castro & Lopes, 2022). Digital transformation has shaped a culture of interaction between the government and society in a transparent manner (Akarkin & Yasinovskaya, 2020). According to Correa-Ospina et al. (2021), digital transformation has transformed the public sector, with information and communication technology (ICT) providing new methods for interaction between governments and their citizens. In addition, this transformation also creates opportunities for more inclusive cross-cultural communication (Oky Oktaviani Pane, 2024). This allows the government to reach various groups of people more effectively.

In building a strong public sector infrastructure, technology plays an important role by facilitating sustainable innovation and generating value for society (Morte-Nadal & Esteban-Navarro, 2022). The processes used to do so may involve not only technological elements but also social, political, and organizational aspects (Gardenghi et al., 2020). This concept helps the government in terms of transparency, increased accountability, and public trust (Mutar et al., 2022). Thus, government transformation can be driven by information technology, which is considered a key stage in the process.

This transformation is not only related to the application of new technologies but also about the development of inclusive communication strategies that can serve diverse cultural backgrounds (Sari, 2020). Through a multicultural communication approach, governments can bridge the gap between communities, foster social cohesion, and ensure no one is left behind in the digital age. This approach is aligned with the principles of transparency and accountability, as it facilitates a two-way communication channel where feedback from all cultural groups can be effectively collected and addressed. In addition, it also improves the efficiency of public services by reducing misunderstandings and creating a more inclusive environment where all citizens feel represented and heard.

In the last two decades, the initiation of digital transformation in public services marks the beginning of efforts aimed at improving the performance and results of service delivery in the public sector while advancing the modernization of the government system (Nielsen, 2019). Innovations in digital transformation have an impact on citizens' behavior, their information needs, and the way individuals communicate (Gasova & Stofkova, 2017). Digital transformation has attracted significant scientific attention in the government sector, a phenomenon that is relatively rare in empirical research on digital transformation in the public sector (Suseno, 2023). The transformation has also paved the way for more inclusive and responsive communication to the cultural diversity of society.

The new paradigm of digital transformation in every policy optimizes the production process so that work productivity and government management allow operational control to respond to changes in a timely manner (de Menezes et al., 2022). This is in line with the principle of multiculturalist communication, which sees cultural and language differences as wealth that needs to be accommodated in public services (Pilarska, 2015). Thus, digital transformation not only improves the efficiency and modernization of the government

system but also strengthens social cohesion and a sense of justice through more inclusive communication towards diversity.

In recent years, governments have undergone significant digital transformation (Correa-Ospina et al., 2021). Digital transformation has become a common aspect of contemporary social and economic progress, offering considerable digital benefits to society globally (Dobrolyubova, 2021a). More than just technological improvements, digital transformation is also driving more inclusive multicultural communication (Surijah et al., 2019). In this context, multiculturalism communication becomes essential. Along with the increasing use of information and communication technology (ICT), the government now has better tools to reach various elements of society.

Chung & Kim (2019b) stated that building digital transformation is not limited to the function or work of one field because the concept of digital transformation is not just about creating a new framework for government. This concept is an integral part of a strong foundation in public service that can provide an impetus for continuous innovation and create added value in the public and private sectors and society at large (Morte-Nadal & Esteban-Navarro, 2022a). This includes increased effectiveness in providing public services. Many academics argue that the adoption of digital transformation can encourage sustainable progress in government services as well as provide significant benefits to society (Saari et al., 2022). In the context of multiculturalism communication, digital transformation also plays an important role in ensuring that these benefits are felt equally by all community groups (Suseno, 2023). By integrating culturally sensitive communication strategies through the concept of e-government, the government can more effectively reach various communities.

Digital transformation and the implementation of e-government are considered important steps in improving the quality of public services (Inakefe et al., 2023). The e-government system is one of the aspects of digital transformation in the public sector (Akbar et al., 2022). Countries with efficient e-government have succeeded in reducing the burden of public administration through improved government performance, transparency, and accountability (Agbozo & Asamoah, 2019a). E-government is basically a keyword that brings change in the scope of digital government (Mergel et al., 2019). In a multicultural society, e-government can help bridge the communication gap between various ethnic and cultural groups (Sari, 2020). By providing services in a variety of formats that are accessible to all citizens, e-government contributes to greater social inclusion in the governance process.

The transformation that many countries have implemented on the European continent (Morte-Nadal & Esteban-Navarro, 2022b), the service is improved through digital transformation by public authorities, which focuses on utilizing innovation to collect, transmit, process, or analyze data (Yuliantini, 2023). This is expected to facilitate public access to public services, especially in the context of a multicultural society. In addition, this approach allows the government to be more responsive to the specific needs of each group, minimize gaps in services, and increase citizen satisfaction (Caron & Markusen, 2016).

Theories of cultural pluralism, cosmopolitanism, and social contact can be utilized to strengthen research on the dynamics of cultural diversity and cross-cultural communication in the era of multiculturalism (Santos, 2024). Multicultural communication emphasizes interactions between individuals or groups with different cultural backgrounds, which

requires a deep understanding of the norms, values, and perspectives of each culture. In addition to examining the challenges faced by multicultural and multiethnic societies in the digitalization process, such as the digital divide and the challenges of ethnic media, it is also important to highlight communication and media policies that support the activities of cultural, linguistic, and ethnic groups, especially in developing countries (Vartanova & Gladkova, 2020).

The development of digital literacy illustrates the nature of technology that continues to evolve and its significant impact on the lives of multicultural societies. In the context of cross-cultural communication, digital technology enables faster and more efficient intercultural interactions, although there is still the potential for misunderstandings due to differences in language and cultural values (Anurogo et al., 2023). Therefore, continuous learning and adaptation are essential to remain relevant amidst changes in the digital world. In the future, the evolution of digital literacy will likely be influenced by ongoing technological innovations and social changes in cosmopolitan societies, which emphasize the importance of multicultural communication skills in the era of globalization.

The implementation of e-government faces significant challenges, such as inadequate data integration, limited adoption in public services, and reliance on obsolete technologies (Mutar et al., 2022b). In addition, low competence among employees, different cultural mentalities, and limited collaboration between stakeholders further complicate this implementation (Twizeyimana & Andersson, 2019). In the context of multiculturalist communication, these challenges demonstrate the need for an inclusive approach that considers multiple cultural perspectives and builds digital leadership that is able to unite diverse visions (Nardon et al., 2011). To overcome these challenges a strategy is needed that involves improving employee competencies through training that focuses on understanding modern technology and adapting to cultural changes.

Su et al. (2021) stated that the problem in the context of government is a lack of understanding of effective strategies to deal with the changes that occur. In the context of multicultural communication, digital transformation opens up opportunities for the government to reach a more diverse society that is more inclusive and efficient. Information technology allows the dissemination of information in various formats that suit the needs of different cultural groups (Dewi & Furqon, 2020). Thus, the use of this technology not only improves accessibility but also strengthens communication between the government and people who have diverse cultural backgrounds (Surijah et al., 2019).

The use of digital technology in government is becoming increasingly important to encourage more inclusive and diverse community participation (Alexopoulos et al., 2021a). Digital platforms can be used to gather input from various communities, thus facilitating wider involvement in the policy-making process (Congge et al., 2023). While digital transformation offers many benefits in improving multicultural communication, significant challenges remain. One of the main challenges is the digital divide that still exists in society, especially among marginalized groups (Haniko et al., 2023). Unequal access to digital technologies and skills can exacerbate inequalities in public participation.

The government needs to ensure that the adoption of information technology not only benefits a small part of society but also covers all layers, including those in remote areas that have limited access to digital infrastructure (Suseno, 2023). In addition, technological

adaptation in multicultural communication also requires a sensitive approach to different cultural values (Joseph Nalloor, Catherine Archer, Perth, 2016). Therefore, governments need to develop flexible and adaptive communication strategies that not only utilize advanced technology but also accommodate cultural diversity. This will increase the effectiveness of communication between the government and the community in a multicultural context.

The uniqueness of this research is also very relevant in the context of governance, especially in designing inclusive and effective communication strategies for multicultural societies (Liu & Ni, 2021). In good governance, the government's ability to reach and engage all levels of society without marginalizing certain groups is key to building public trust and increasing citizen participation (Hyland-Wood et al., 2021). This research correlates the concept of multiculturalism with government communication strategies, especially in crisis situations, where accurate and understandable information is essential (Sanusi et al., 2022; Pilarska, 2015). Through this research, it can be identified how the government can develop communication policies that are sensitive to cultural and linguistic differences, to ensure that every community group feels heard, represented, and involved in the decision-making process (Horváth & Molnár, 2021). By considering the organization-public relationship (OPR) in governance, this research offers new insights into how the government can strengthen relationships with multicultural communities, while reducing the risk of miscommunication and increasing equity in the distribution of information and public services.

This research aims to examine the development of government digital transformation research by considering multicultural communication. As digital transformation progresses, the criteria used to assess the process evolve along with technological advances (Shahaab et al., 2023). This research will explore the extent to which governments have adopted inclusive and culturally sensitive digital approaches. This adjustment is necessary because the impact of digitalization on government performance varies, depending on the communication pattern of community multiculturalism (Dobrolyubova, 2021b). This concept plays an important role in addressing the digital divide and promoting wider public participation (Haniko et al., 2023). Therefore, this research can be an important reference for the development of a more adaptive and responsive government to the needs of a multicultural society.

RESEARCH METHOD.

This research uses a qualitative methodology with a literature review approach to examine articles regarding digital transformation in government. The data sources used were relevant scientific articles utilizing the keywords "digital transformation" and "government" in the title, abstract, and keywords. The analysis of data involved examining the yearly publication count, contributions by country, areas of study, authorship, cited sources, relevant topics, affiliations, and referenced papers. In addition, the Citespace visualization tool was used to provide a visual analysis of keyword occurrence. In this research, CiteSpace software was used to analyze trends and patterns in bibliographic data, especially in scientific research. Its applications involve visualizing relationships between different scientific works, such as articles, authors, journals, or keywords, to identify the development of research topics, author collaborations, and key literature. Using citation analysis, co-citation, and burst detection. In the context of multiculturalist communication,

this analysis also considers how these topics relate to cultural diversity as well as the challenges associated with the implementation of digital technologies in multicultural governance. By understanding the relationship between digital transformation and cultural diversity, this research aims to provide deeper insights into how technology can be applied inclusively and effectively by taking cultural diversity into account.

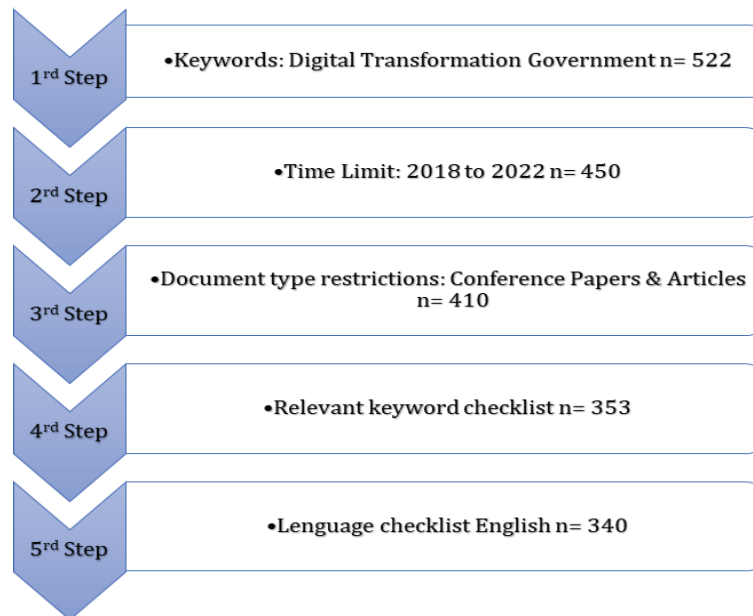


Figure 1. Data Collection Stages.
Source: Scopus Database (2023)

Collecting articles from the Scopus database involves a multi-stage process. The initial stage entails conducting a search using two keywords, namely “Digital Transformation” and “Government”, which resulted in 522 documents. In the second stage, the search was limited to five years from 2018 to 2022, and 450 documents were found. In the third phase, the identification of document types earmarked for analysis was undertaken, specifically conference papers, scientific articles and 410 documents. In the fourth stage, keywords related to digital transformation and e-government were reduced, resulting in 353 documents. Finally, in the fifth stage, English-only documents were prioritized, resulting in 340 relevant documents being analyzed (Fig. 1).

DISCUSSION.

Digital transformation in government does have a significant impact on aspects of multiculturalism, especially in encouraging more inclusive communication relationships (Sari, 2020). Digital technology allows governments to reach out to various cultural groups more effectively, facilitate cross-cultural communication, and strengthen wider community participation (Oky Oktaviani Pane, 2024). Although important, multicultural communication in the context of digital transformation is not the main topic that has dominated the discussion in recent years, as the main focus is more on improving the quality and effectiveness of

government services through digitalization.

In a period of five years, from 2018 to 2022, there is an increase in the number of studies related to digital transformation. In 2018, there was an increase in the number of publications from 24 to 78 until 2020. In the following year, 2021, there was a slight increase in research interest, with the number of publications reaching 80. The increase was only 2 publications, while in the following year, there was a significant increase to 111 publications (Fig. 2).

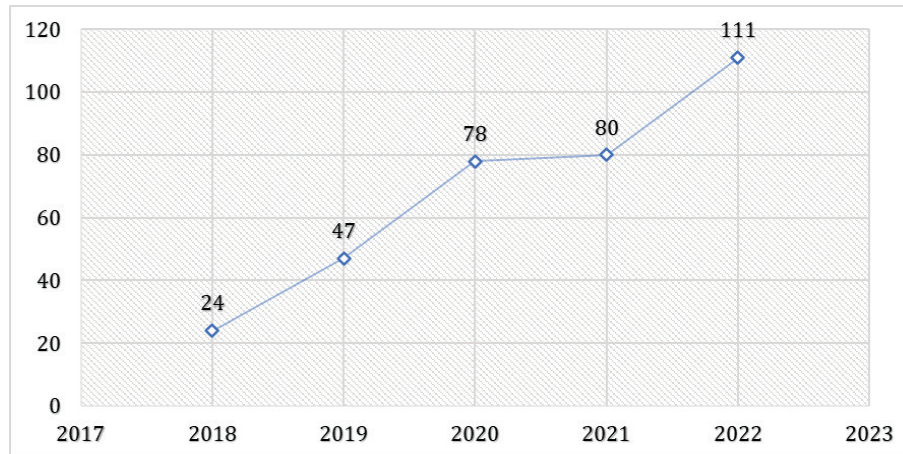


Figure. 2 Publication Trend per Year

Source: Scopus Database

The study can address topics such as digital technology adoption, implementation strategies, change management, information security, and the resulting socio-economic impact (Rytova et al., 2020). These findings show that digital transformation has become an increasingly important topic in the field of research over the past five years. The increase in the number of publications from year to year shows an increasing interest and effort to understand and delve deeper into the role and impact of digital transformation in various sectors (Figure 2).

The study also provides insights into how digital transformation affects multiculturalist communication, especially in the context of government and public services (Oky Oktaviani Pane, 2024). Implementation strategies that take into account cultural diversity can strengthen communication effectiveness, increase citizen participation, and ensure that the needs of different cultural groups are met. Additionally, culturally context-sensitive change management is essential to minimize resistance and ensure wider adoption of the technology. The socio-economic impact of this digital transformation also plays a role in reducing the digital divide, although challenges in access and technological literacy still need to be overcome to ensure more equitable inclusion across all levels of society.

Research on digital transformation in government has involved contributions from countries around the world, reflecting the global importance of this topic. The analysis of the publication shows that many countries are active in this study, with different amounts of contributions from each country. The following data provides an overview of the countries that are most productive in publications related to the digital transformation of government.

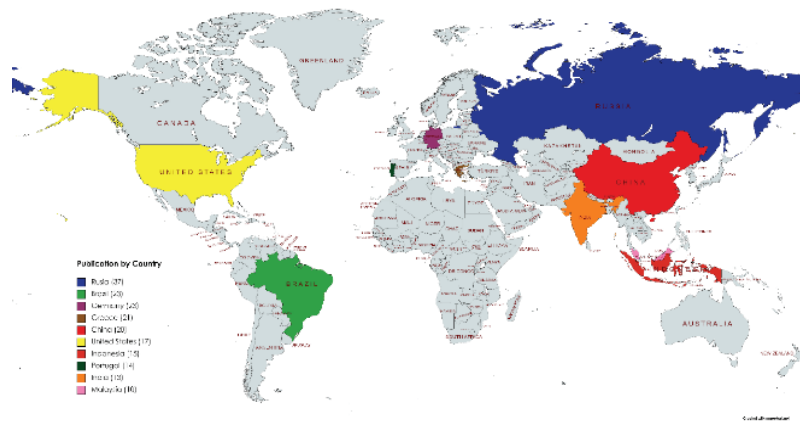


Figure. 3 Country Publication Trend.
Source: Scopus Database using Map Chart

A total of 65 countries published research on government digital transformation. Countries with the highest number of publications include Russia (N=37), Brazil (N=23), Germany (N=23), Greece (21) and China (N=20). This research is used to implement and propose digital transformation in the government sector (Chung & Kim, 2019). These results highlight the importance of cooperation and knowledge between different countries to achieve transformation in government. By understanding the various contexts and experiences of countries around the world, we can learn from each other and develop the best strategies that are appropriate to each cultural context. The multiculturalism approach allows us to accelerate the efficiency and effectiveness of digital transformation in government, ensuring that technology is applied inclusively and responsively to cultural differences (Fig. 3).

To understand more deeply about the topic of digital transformation in government, it is essential to analyze the subjects that have the highest number of citations. Figure 4 provides detailed insights into the analysis of citations based on subjects related to this topic.

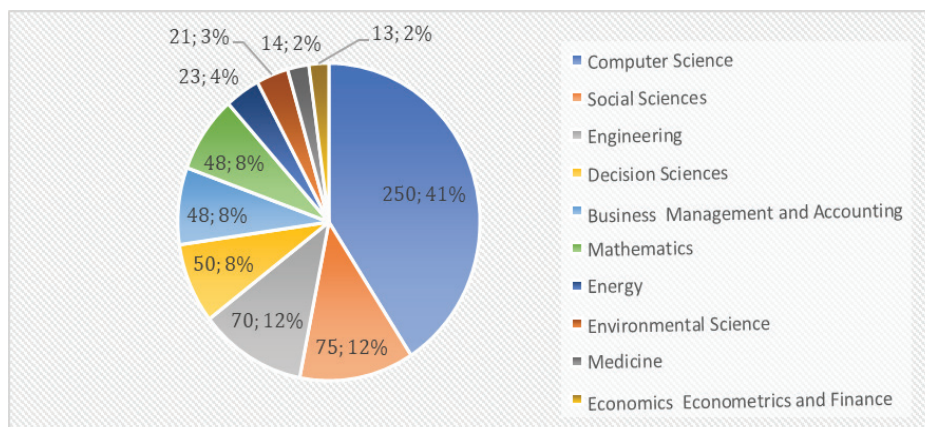


Figure 4. Highest Subject Presentation.
Source: Scopus Database

Figure 4, The results of the analysis based on the subject with the highest citations related to the government's digital transformation. Referring to the views of Morte-Nadal & Esteban-Navarro (2022), information and communication technology (ICT) is a key element of a strong public sector infrastructure, driving sustainable innovation and creating value for society. The search results show that the field of computer science dominates with a percentage of 41% of the highest number of citations. This finding shows that emphasis is placed on aspects of the utilization of information technology in government transformation. The field of computer science studies makes an important contribution to applying information and communication technology in the context of government and supporting the innovations needed to achieve effective digital transformation.

This initiative is a step that aims to improve the efficiency and effectiveness of the production and delivery of public sector services, with the aim of modernizing the governance system (Nielsen, 2019). The contribution of the field of computer science in digital transformation research provides an in-depth understanding of the changes taking place in the government sector. In the context of multiculturalistic communication, the integration of knowledge that takes cultural diversity into account helps to develop sustainable strategies that make effective use of information technology and ensure the accessibility of public services for all cultural groups.

An analysis of article citations related to digital transformation in government shows a major focus on highly influential works in this field. Figure 5 below shows the ten articles with the highest number of citations relevant to the topic.

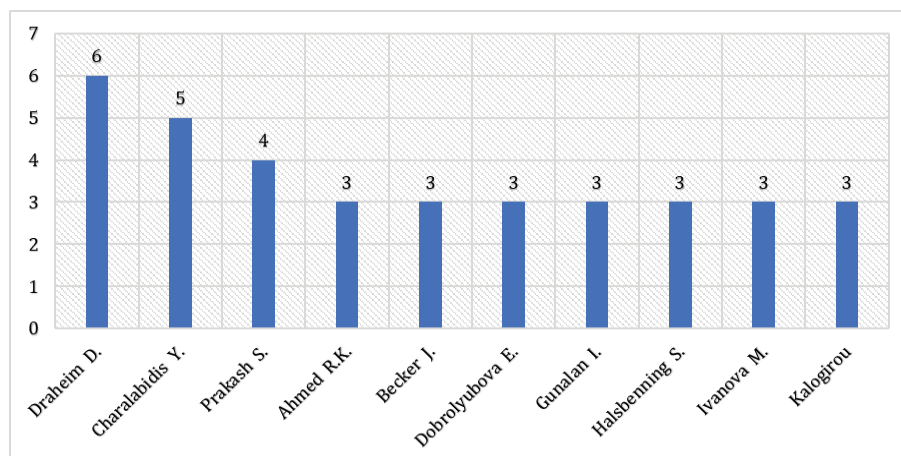


Figure 5. Authors with the Highest Number of Publications.

Source: Scopus Database

Figure 5 above shows the ten articles with the highest citation counts related to the topic of Digital Transformation in Government. The author with the most citations on Digital Government is Draheim (2021), with 6 citations. The substantial number of citations also contributes novel insights regarding several papers that serve as crucial references, among them the article titled *"Data Exchange for Digital Government: Where Are We Heading? ADBIS2021 Keynote"*. This provided new knowledge and insights into relevant and

significant studies in the context of the digital transformation of government. These articles can provide a solid basis for cultivating a more profound comprehension of the concept and execution of digital transformation within the governmental context (Fig. 5).

In addition, it is observed that certain authors are involved in different fields of study with identical publications. This occurs when the author’s research theme or title meets the criteria for a multidisciplinary field. For example, in this particular case, Ahmed et al. (2020), with the title “Challenges in the Digital Transformation of Courts: A Case Study from the Kurdistan Region of Iraq”, and the work of Ivanova & Putintseva (2020) “Evaluation approaches to the digital transformation of governments: A comparative analysis of indicators in central and eastern European countries”. These two articles are interpreted to represent two fields of study, namely, exploring the theme of digital transformation and public services. It provides an overview of other studies that have faced similar situations. These findings show how various perspectives can reveal the interconnectedness and complexity of digital transformation studies in public services. By understanding multiculturalism communication, authors involved in different fields of study can offer more diverse insights, which in turn helps implement digital transformation in a more inclusive and responsive way to the needs of different cultural groups.

The analysis also reveals that several affiliated institutions play an essential role in government research on digital transformation. Some of them have the highest number of publications cited, demonstrating a significant influence on the development and application of technology in the public sector.

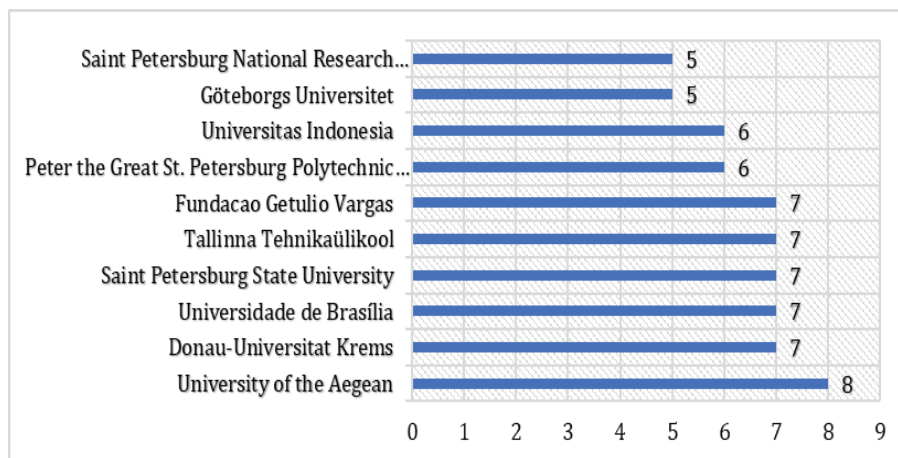


Figure. 6 Number of Affiliated Publications.

Source: Scopus Database

Several affiliated institutions had publications with the highest number of citations, as shown in Figure 6, including the University of the Aegean, with 8 publications. One of them is the work of Alexopoulos et al. (2021) with the title “How Blockchain Technology Changes Government: A Systematic Analysis of Applications”. Several other affiliates, such as Donau-Universitat Krems, Universidade de Brasília, Saint Petersburg State University, Tallinna Tehnikaülikool and Fundacao Getulio Vargas, each have 7 publications. Meanwhile, other affiliates only had 5 and 6 publications.

Digital transformation can encourage the sustainable development of the government and bring many benefits to society (Wang et al., 2022). This is due to the various effects of digitalization on government performance, which depends on the stage of digital transformation that is being undertaken (Dobrolyubova, 2021b). These results show the significant contribution of several institutions in research and publications on governance transformation. In the context of multiculturalist communication, the role of these institutions is crucial because they not only introduce new practices but also ensure that digital transformation is implemented in an inclusive manner, taking into account the cultural diversity and needs of various groups of society. Publications that received many citations show that this research is not only influential in its field but also widely recognized.

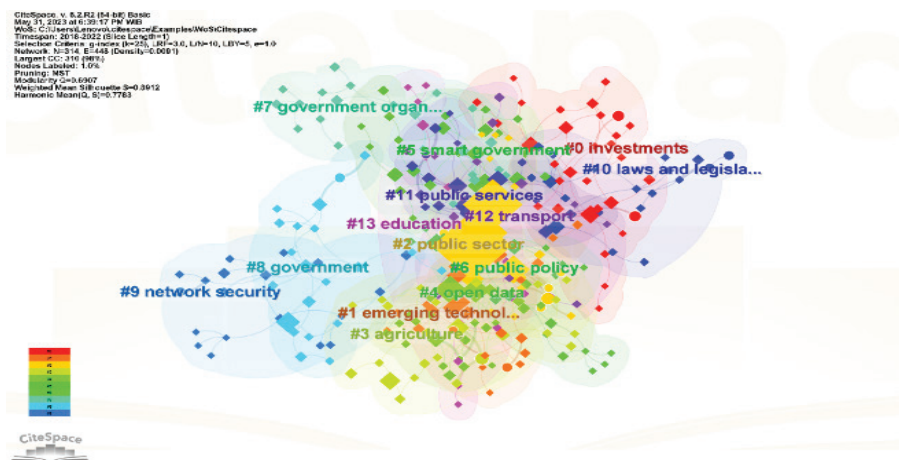


Figure. 7 Keyword Network Visualisation
Source: Keyword-processed using Citespace

Figure 7 above shows the visualization obtained as 13 clusters (173) items. Citespace analysis translates Scopus data and reads themes through content. Each cluster has a different value: cluster #0 (16) items, cluster #1 (16) items, cluster #2 (19) items, cluster #3 (9) items, Cluster #4 (16) items, cluster #5 (16) items, cluster #6 (14) items, cluster #7 (9) items, cluster #8 (9) items, cluster #9 (10) items, cluster #10 (11) items, cluster #11 (16) items, cluster #12 (4) items, and cluster #13 (8) items. From the analysis, 10 clusters mapped the research topics of *digital transformation government*. Three clusters #9, #11, and #12 have no connection to the research. Citespace's network visualization determined differences in the number of items and topics in each cluster.

This study discusses e-government processes as one of the most important applications of digital transformation among societies (Lytras & Şerban, 2020). Based on the findings, several trends can be identified. Firstly, there is a variation in the number of items between each cluster, indicating a difference in the focus or issues addressed in the research. Clusters with a higher number of items, such as cluster #2, indicate more significant issues or topics in the study. Furthermore, there is a relatively similar pattern of items in some clusters, such as clusters #0, #1, #4, and #5 (all have 16 items). Similarly, in clusters #3, #7, and #8 (each with 9 items), this finding indicates a relationship or interconnectedness between the topics covered in these clusters.

Table 1. Articles with the Highest Number of Citations.

Cluster-ID	Label	Citations
#0	banking system	17 digital economy, 15 economics, 8 economic and social effects
#1	digital disruption	21 smart city, 18 artificial intelligence, 15 local government
#2	digital organizational resilience	300 digital transformation, 166 e-government, 68 digital government
#3	governance innovation	20 digitalization, 17 covid 19, 6 Janowski T, 2015
#4	open data	44 public administration, 32 metadata, 12 open data
#5	information technology	13 information and communication technology, 12 case studies, 11 government is
#6	correlating analogue	18 decision-making, 16 public policy, 15 information management
#7	government organization	6 enterprise architecture, 5 government organizations, 5 government institutions
#8	corporate environment performance	22 government, 9 innovation, 7 article
#10	great divide	13 interoperability, 9 Vial G, 2019, 8 laws and legislation
#13	cooperative network interaction	33 digital technology, 4 commerce, 3 comparative analysis

Source: Citation Summary using Citespace

In Table 1, a bibliometric analysis was conducted by selecting keywords in published articles, and there is a close relationship between the dominant themes of digital transformation government. Some of these topics, such as *banking systems*, *digital disruption*, *digital organizational resilience*, *governance innovation*, and *open data*, are integral parts of digital transformation in government.

The findings show that the most cited keywords regarding “*digital organizational resilience*” include *digital transformation* (300), *e-government* (166), and *digital government* (68). These findings show that digital organizational resilience is a closely related topic and the focus of research that applies technology in digital transformation in government. E-government is evolving and transitioning, which can increase the possibilities of sustainable development through the digital transformation of government (Castro & Lopes, 2022). Digital transformation, as the main keyword with 300 citations, shows the focus on the

application of information and communication technology in government processes to improve the efficiency and effectiveness of public affairs management (Table 1).

In the context of multiculturalism communication, the findings from cluster #2 also highlight the importance of considering aspects of cultural diversity in the application of digital technology in government. Digital transformation focuses on organizational resilience, and e-government must take into account the needs of various diverse community groups, including cultural, ethnic, and linguistic minorities (Sari, 2020). The resilience of digital organizations is not only about the government's ability to adapt to technological changes but also about its ability to interact effectively with all levels of society without exception.

The results of the analysis using CiteSpace show several important clusters that have direct power on governance in the digital era. The digital organizational resilience cluster (#2), with main topics such as digital transformation, e-Government, and digital government, highlights the importance of government organizational resilience in facing digital transformation. The government needs to invest in digital technology to improve the efficiency of public services and respond to community needs more quickly and precisely (Sukarno & Nurmandi, 2023; Yuliantini, 2023). Furthermore, the digital disruption cluster (#1), which is related to smart cities, artificial intelligence, and local government, illustrates the impact of digital disruption on local government governance. The implementation of technologies such as AI and the concept of smart cities opens up opportunities for local governments to improve the quality of life of citizens through innovation in resource management and public services (Raharja et al., 2023).

The governance innovation cluster (#3) highlights the importance of digitalization and innovation in governance during the COVID-19 pandemic, showing the need for the government to continue to innovate in facing the crisis by utilizing digitalization to accelerate more adaptive and responsive public services. In addition, the open data cluster (#4), which covers public administration, metadata, and open data, emphasizes the importance of open access to data to improve transparency and accountability in public administration. Governments that adopt open data policies can strengthen public trust and encourage citizen participation in decision-making (Mangnus et al., 2022; Prihatini, 2019; Wade et al., 2021; Zhu et al., 2022).

Finally, the correlating analog cluster (#6), which focuses on decision-making, public policy, and information management, shows that effective information management is essential in the public policy decision-making process. The government must ensure that the data managed can be accessed and utilized optimally in determining targeted policies (Mangnus et al., 2022; Reardon et al., 2022; Wade et al., 2021).

The implementation of e-government provides an excellent opportunity to strengthen inclusivity in public services by enabling easier access and responsiveness to the various needs of society (Chung & Kim, 2019b). However, if this transformation is carried out without taking into account multicultural factors, there is a risk that some groups of society may be marginalized or not benefit from the same. For example, differences in digital literacy or language can be a barrier to equal access to government digital services. Therefore, a multicultural approach to digital transformation is essential to ensure that all members of society can fully participate in the governance process.

Thus, the focus on the resilience of digital organizations must also include an inclusive communication strategy that takes into account the cultural diversity of different groups of society. This will support fair and equitable sustainable development, as well as strengthen the legitimacy of government in the context of a multicultural society. Successful digital transformation is measured not only by technical efficiency but also by how well the technology can bridge cultural differences and create a more responsive and inclusive government for all citizens.

CONCLUSION.

The conclusion of this study highlights the importance of digital transformation in government, with a focus on the topic of digital organizational resilience as a major concern. Although this field has experienced significant growth with over 340 publications since 2018, the multicultural communication aspect has not received adequate attention. The digital disruption cluster shows the potential use of technologies such as smart cities and artificial intelligence in improving the quality of public services in the regions, while the open data cluster emphasizes the importance of open access to information to increase transparency and accountability.

Therefore, it is important for future research to explore more deeply how the integration of multicultural communication can strengthen digital transformation, especially in multi-ethnic governments. A concrete recommendation for policymakers is to expand digital initiatives that consider the diversity of cultures, languages, and local values in designing e-government platforms and other digital services. These policies should support the inclusive use of technology, allowing all levels of society to actively participate and feel represented.

For academics, further research can focus on how various elements of multicultural communication, such as language adaptation and cultural context, can be integrated in the development of digital technologies to improve the quality of more inclusive public services. Comparative studies across countries or regions with different levels of cultural diversity can also provide further insights into how digital transformation can be effectively managed in multicultural governments. Thus, this study provides a foundation for more specific future policy and research developments in integrating multicultural approaches into government digital transformation.

ACKNOWLEDGEMENT.

Thanks to the Department of Government Affairs and Administration Universitas Muhammadiyah Yogyakarta.

REFERENCES.

- Agbozo, E., & Asamoah, B. K. (2019). The role of e-government systems in ensuring government effectiveness and control of corruption. *R-Economy*, 5(2), 53–60. <https://doi.org/10.15826/recon.2019.5.2.006>
- Ahmed, R. K., Muhammed, K. H., Pappel, I., & Draheim, D. (2020). Challenges in the Digital

- Transformation of Courts: A Case Study from the Kurdistan Region of Iraq. In T. L., T. L., A. G. R. s/n Universidad de las Fuerzas Armadas (ESPE) Quito, P. J., & P. E. (Eds.), *2020 7th International Conference on eDemocracy and eGovernment, ICEDEG 2020* (pp. 74–79). Institute of Electrical and Electronics Engineers Inc. <https://doi.org/10.1109/ICEDEG48599.2020.9096801>
- Akatkin, Y., & Yasinovskaya, E. (2020). Data-Driven Government in Russia: Linked Open Data Challenges, Opportunities, Solutions. *Communications in Computer and Information Science*, *1349*(September 2021), 245–257. https://doi.org/10.1007/978-3-030-67238-6_18
- Akbar, P., Nurmandi, A., Irawan, B., & Loilatu, M. J. (2022). Research Trends in E-Government Interoperability: Mapping Themes and Concepts Based on The Sco-pus Database. *EJournal of EDemocracy and Open Government*, *14*(2), 83–108. <https://doi.org/10.29379/jedem.v14i2.707>
- Alexopoulos, C., Charalabidis, Y., Loutsaris, M. A., & Lachana, Z. (2021). How Blockchain Technology Changes Government: A Systematic Analysis of Applications. *International Journal of Public Administration in the Digital Age*, *8*(1). <https://doi.org/10.4018/IJPADA.20210101.0a10>
- Anurogo, D., Hardin La Ramba, Nabila Diyana Putri, & Ulfah Mahardika Pramono Putri. (2023). Digital Literacy 5.0 to Enhance Multicultural Education. *Multicultural Islamic Education Review*, *1*(2), 109–179. <https://doi.org/10.23917/mier.v1i2.3414>
- Caron, J., & Markusen, J. R. (2016). *Journal humanities Therapy*. 1–23.
- Castro, C., & Lopes, C. (2022). Digital Government and Sustainable Development. *Journal of the Knowledge Economy*, *13*(2), 880–903. <https://doi.org/10.1007/s13132-021-00749-2>
- Chung, C.-S., & Kim, S.-B. (2019). A comparative study of digital government policies, focusing on E-Government acts in Korea and the United States. *Electronics (Switzerland)*, *8*(11). <https://doi.org/10.3390/electronics8111362>
- Congge, U., Guillamón, M. D., Nurmandi, A., Salahudin, & Sihidi, I. T. (2023). Digital democracy: A systematic literature review. *Frontiers in Political Science*, *5*(February). <https://doi.org/10.3389/fpos.2023.972802>
- Correa-Ospina, M., Saxena, D., & Pinzón, B. H. D. (2021). Mechanisms underpinning the usage of e-government services by businesses: A proposal based on previous empirical research. *EJournal of EDemocracy and Open Government*, *13*(2), 154–183. <https://doi.org/10.29379/jedem.v13i2.685>
- de Menezes, V. G., Pedrosa, G. V, da Silva, M. P. P., & Figueiredo, R. M. C. (2022). Evaluation of Public Services Considering the Expectations of Users—A Systematic Literature Review. *Information (Switzerland)*, *13*(4). <https://doi.org/10.3390/info13040162>
- Dewi, L. R., & Furqon, E. (2020). Peran Dinas Komunikasi Dan Informatika Kota Serang Dalam Penyebarluasan Informasi Dan Tata Kelola Pemerintah Daerah. *Indonesian State Law Review (ISLRev)*, *3*(1), 9–22. <https://doi.org/10.15294/islrev.v3i1.48950>
- Dobrolyubova, E. (2021). Measuring outcomes of digital transformation in public administration: Literature review and possible steps forward. *NISPACEe Journal of Public*

- Administration and Policy*, 14(1), 61–86. <https://doi.org/10.2478/nispa-2021-0003>
- Draheim, D. (2021). Data Exchange for Digital Government: Where Are We Heading? ADBIS2021 Keynote. In B. L., D. M., K. P., M. R., A. A., W. M., I. M., & H. O. (Eds.), *Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics): Vol. 12843 LNCS* (pp. 7–12). Springer Science and Business Media Deutschland GmbH. https://doi.org/10.1007/978-3-030-82472-3_2
- Gardenghi, J. L., Pereira, L. G., Alcantara, S. M., Figueiredo, R. M. C., Ramos, C. S., & Ribeiro, L. C. M. (2020). Digitalization by means of a prototyping process: The case of a Brazilian public service. *Information (Switzerland)*, 11(9). <https://doi.org/10.3390/INFO11090413>
- Gasova, K., & Stofkova, K. (2017). E-Government as a Quality Improvement Tool for Citizens' Services. *Procedia Engineering*, 192, 225–230. <https://doi.org/10.1016/j.proeng.2017.06.039>
- Haniko, P., Sappaile, B. I., Gani, I. P., Sitopu, J. W., Junaidi, A., Sofyan, & Cahyono, D. (2023). Menjembatani Kesenjangan Digital: Memberikan Akses ke Teknologi, Pelatihan, Dukungan, dan Peluang untuk Inklusi Digital. *Jurnal Pengabdian West Science*, 2(05), 306–315. <https://doi.org/10.58812/jpws.v2i5.371>
- Horváth, Á., & Molnár, P. (2021). A review of patient safety communication in multicultural and multilingual healthcare settings with special attention to the U.S. and Canada. *Developments in Health Sciences*. <https://doi.org/10.1556/2066.2021.00041>
- Hyland-Wood, B., Gardner, J., Leask, J., & Ecker, U. K. H. (2021). Toward effective government communication strategies in the era of COVID-19. *Humanities and Social Sciences Communications*, 8(1), 1–11. <https://doi.org/10.1057/s41599-020-00701-w>
- Inakefe, G. I., Basse, V. U., Ikeanyibe, O. M., Nwagboso, C. I., Agbor, U. I., Ebegbulem, J., Mbonu, F. I., & Ike, G. U. (2023). Digital Literacy and E-Governance Adoption for Service Delivery in Cross River State Civil Service. *International Journal of Electronic Government Research*, 19(1). <https://doi.org/10.4018/IJEGR.328327>
- Ivanova, M., & Putintseva, N. (2020). Approaches to evaluation of digital transformation of government: Comparative analysis of indicators in the central and eastern european countries. *ACM International Conference Proceeding Series*. <https://doi.org/10.1145/3444465.3444508>
- Joseph Nalloor, Catherine Archer, Perth, K. W. (2016). *Multicultural communication in the Middle East: How a 'young' profession in a young but ancient region is adapting to the challenges of cross-cultural communication in an increasingly digital world (iCCCC)*. 19(5), 1–23.
- Liu, W., & Ni, L. (2021). Relationship matters: How government organization-public relationship impacts disaster recovery outcomes among multiethnic communities. *Public Relations Review*, 47(3), 102047. <https://doi.org/10.1016/j.pubrev.2021.102047>
- Lytras, M. D., & Şerban, A. C. (2020). E-Government Insights to Smart Cities Research: European Union (EU) Study and the Role of Regulations. *IEEE Access*, 8, 65313–65326. <https://doi.org/10.1109/ACCESS.2020.2982737>

- Mangnus, A. C., Vervoort, J. M., Renger, W.-J., Nakic, V., Rebel, K. T., Driessen, P. P. J., & Hajer, M. (2022). Envisioning alternatives in pre-structured urban sustainability transformations: Too late to change the future? *Cities*, *120*. <https://doi.org/10.1016/j.cities.2021.103466>
- Mergel, I., Edelmann, N., & Haug, N. (2019). Defining digital transformation: Results from expert interviews. *Government Information Quarterly*, *36*(4). <https://doi.org/10.1016/j.giq.2019.06.002>
- Morte-Nadal, T., & Esteban-Navarro, M. A. (2022). Digital Competences for Improving Digital Inclusion in E-Government Services: A Mixed-Methods Systematic Review Protocol. *International Journal of Qualitative Methods*, *21*. <https://doi.org/10.1177/16094069211070935>
- Morte-Nadal, Tamara, & Esteban-Navarro, M. A. (2022). Digital Competences for Improving Digital Inclusion in E-Government Services: A Mixed-Methods Systematic Review Protocol. *International Journal of Qualitative Methods*, *21*, 1–9. <https://doi.org/10.1177/16094069211070935>
- Mutar, A. F., Abdullah, A. R., Jasim, O. M., Saare, M. A., & Lashari, S. A. (2022). A comprehensive method of e-government transition for viable development in Iraq. *Bulletin of Electrical Engineering and Informatics*, *11*(4), 2388–2398. <https://doi.org/10.11591/eei.v11i4.3142>
- Nardon, L., Steers, R. M., & Sanchez-Runde, C. J. (2011). Seeking common ground. Strategies for enhancing multicultural communication. *Organizational Dynamics*, *40*(2), 85–95. <https://doi.org/10.1016/j.orgdyn.2011.01.002>
- Nielsen, M. M. (2019). Governance lessons from Denmark's digital transformation. In C. Y.-C., S. F., & Z. A. (Eds.), *ACM International Conference Proceeding Series* (pp. 456–461). Association for Computing Machinery. <https://doi.org/10.1145/3325112.3329881>
- Oky Oktaviani Pane, A. L. (2024). *Multiculturalism Communication In The Era Of Globalization*. *7482*, 131–137.
- Pilarska, J. (2015). Interpersonal Skills in Dealing with Multiculturalism: Bosnian Borderland Case. *European Journal of Social Sciences Education and Research*, *5*(1), 337. <https://doi.org/10.26417/ejser.v5i1.p337-348>
- Prihatini, E. S. (2019). Women's views and experiences of accessing National Parliament: Evidence from Indonesia. *Women's Studies International Forum*, *74*, 84–90. <https://doi.org/10.1016/j.wsif.2019.03.001>
- Raharja, J., Purnomo, E. P., & Mutiarin, D. (2023). Does E-Government and Control of Corruption Affect Government Effectiveness and Economic Growth in Lower-Middle-Income Countries in Asia? *Jurnal Sositologi*, *22*(3), 314–325. <https://doi.org/10.5614/sostek.itbj.2023.22.3.4>
- Reardon, L., Marsden, G., Campbell, M., Gupta, S., & Verma, A. (2022). Analysing multilevel governance dynamics in India: exercising hierarchy through the Smart Cities Mission. *Territory, Politics, Governance*. <https://doi.org/10.1080/21622671.2022.2107559>
- Rytova, E., Verevka, T., Gutman, S., & Kuznetsov, S. (2020). Assessing the Maturity Level of Saint Petersburg's Digital Government. *International Journal of Technology*, *11*(6),

- 1081–1090. <https://doi.org/10.14716/ijtech.v11i6.4440>
- Saari, A., Vimpari, J., & Junnila, S. (2022). Blockchain in real estate: Recent developments and empirical applications. *Land Use Policy*, 121(August), 106334. <https://doi.org/10.1016/j.landusepol.2022.106334>
- Santos, M. (2024). Dynamics of Cultural Diversity and Intercultural Communication in the Era of Multiculturalism and Cosmopolitanism in Brazil. *International Journal of Sociology*, 8(1), 1–13. <https://doi.org/10.47604/ijcs.2325>
- Sanusi, N., Sidik, A. P., Irawaty, S., Komara, E., & Sari, E. D. (2022). *Multicultural Communication Model in Jamika Tolerance Village, Bandung City*. 1–8.
- Sari, S. N. (2020). *Implementation of the Broadcasting Regulation as a Multicultural Communication Policy in Indonesia's Public Television Broadcasting Institution (LPP TVRI)*. 459(Jcc), 273–275. <https://doi.org/10.2991/assehr.k.200818.063>
- Shahaab, A., Khan, I. A., Maude, R., Hewage, C., & Wang, Y. (2023). Public service operational efficiency and blockchain – A case study of Companies House, UK. *Government Information Quarterly*, 40(1), 101759. <https://doi.org/10.1016/j.giq.2022.101759>
- Su, Y., Hou, F., Qi, M., Li, W., & Ji, Y. (2021). A Data-Enabled Business Model for a Smart Healthcare Information Service Platform in the Era of Digital Transformation. *Journal of Healthcare Engineering*, 2021. <https://doi.org/10.1155/2021/5519891>
- Sukarno, M., & Nurmandi, A. (2023). E-Government Development Index Impact on World Governance Indicator Index in Southeast Asian Countries. *Journal of Contemporary Governance and Public Policy*, 1(April), 97–114.
- Surijah, E. A., Ayuningtias, A. U. H., Hartika, L. D., & Suryani, A. O. (2019). My Nationality or My Ethnicity? The Pride and Attitudes of Balinese Youth as Citizen of Indonesia. *Makara Human Behavior Studies in Asia*, 23(1), 17. <https://doi.org/10.7454/hubs.asia.1030419>
- Suseno, T. A. P. (2023). Pemerataan Infrastruktur Telekomunikasi untuk Kesejahteraan Digital. *Prosiding SEMNAS INOTEK (Seminar Nasional Inovasi Teknologi)* 9, 7, 9–17.
- Twizeyimana, J. D., & Andersson, A. (2019). The public value of E-Government – A literature review. *Government Information Quarterly*, 36(2), 167–178. <https://doi.org/10.1016/j.giq.2019.01.001>
- Vartanova, E., & Gladkova, A. (2020). Old and new discourses in Emerging States: communication challenges of the digital age. *Journal of Multicultural Discourses*, 15(2), 119–125. <https://doi.org/10.1080/17447143.2020.1780244>
- Wade, K., Vrbka, J., Zhuravleva, N. A., & Machova, V. (2021). Sustainable governance networks and urban internet of things systems in big data-driven smart cities. *Geopolitics, History, and International Relations*, 13(1), 64–74. <https://doi.org/10.22381/GHIR13120216>
- Wang, L., Liu, S., & Xiong, W. (2022). The Impact of Digital Transformation on Corporate Environment Performance: Evidence from China. *International Journal of Environmental*

Research and Public Health, 19(19). <https://doi.org/10.3390/ijerph191912846>

Yuliantini, L. S. (2023). The Impact of the E-Government Development Index (EGDI) on the Worldwide Governance Indicator (WGI) in European Union Countries. *Policy & Governance Review*, 7(2), 140–153. <https://doi.org/https://doi.org/10.30589/pgr.v7i2.732>

Zhu, H., Shen, L., & Ren, Y. (2022). How can smart city shape a happier life? The mechanism for developing a Happiness Driven Smart City. *Sustainable Cities and Society*, 80. <https://doi.org/10.1016/j.scs.2022.103791>



Copyright (c) 2024 *Nyimak: Journal of Communication*
This work is licensed under aCreative Commons Attribution-ShareAlike 4.0