Digital Media and Governance Research: Empirical Evidence from Public Administration and Political Science Scholars

Ugochukwu D. Abasilim

Department of Political Science and International Relations
Covenant University, Ota, Ogun-State, Nigeria
https://orcid.org/0000-0002-4754-2355

*Ahmed Oluwatobi Adekunle

Department of Economic and Financial Science

Walter Sisulu University, South Africa

https://orcid.org/0000-0003-1603-6705

*Corresponding author email: aadekunle@wsu.ac.za

Abstract

Background: Recent scholarly interest has focused on the impact of digital media on various aspects of human endeavour. However, governance research has received limited attention in this context.

Objective: This study aimed to determine the impact of digital media on governance research.

Methodology: A descriptive survey research design targeted public administration and political science researchers. The sample consisted of 218 participants selected using a respondent-driven chain referral sampling technique. Data were collected using structured questionnaires and analysed using descriptive statistics.

Results: The study revealed that digital media significantly influence governance research. Key aspects affected include data analysis, data collection, literature review, and intervention delivery. Essential digital media tools impacting governance research comprise journal selection tools, academic writing tools, reference management tools, search engines, and data analysis tools. Furthermore, digital media platforms have impacted all four dimensions of e-governance. These findings align with the technological determinism theory, demonstrating the profound impact of technological advancements on governance research.

Contribution: This study provides empirical evidence on the influence of digital media platforms on governance research, highlighting the shift from manual to digital processes.

Conclusion: Digital media platforms have significantly transformed governance research, enhancing efficiency and effectiveness across various research processes.

Recommendation: Future studies should explore the impact of digital media tools in other disciplines to broaden the understanding of their influence.

Keywords: Digital Media; Digital Tools; E-Governance; Governance Research; Public Administration

Introduction

The influence of digital media on various academic disciplines has garnered increasing interest among researchers due to its pervasive impact on society and technology's transformative effects on human behaviour. Digital technologies have proven valuable across diverse fields, including medicine (Love-Koh et al., 2018), architecture, engineering and building construction (Manzoor et al., 2021), humanities (Given & Willson, 2018), museums (Sylaiou et al., 2017), manufacturing (Kim et al., 2013), marketing (Pagani & Pardo, 2017), and governance (Sirisomboonsuk et al., 2017; Olu-Owolabi et al., 2021). Tasks previously performed manually are now heavily dependent on digital technologies, reshaping societal norms and redefining literacy as the ability to navigate and utilise information and communication technologies (Mojisola & Gberevbie, 2022).

Research methodologies have evolved significantly due to advancements in information and communication technologies. Key aspects of research, such as data collection, analysis, and literature review, have been profoundly influenced by digital tools. For instance, Okereka et al. (2024) examined the impact of digital media on data collection in social and management sciences, revealing that digital platforms facilitate larger sample sizes, enhance research flexibility, and expedite the research process. Similarly, Ohme et al. (2024) and Facca et al. (2020) reported substantial changes in data collection processes due to digital media, though they also highlighted ethical considerations, especially in research involving minors. Despite these advancements, the impact of digital media on governance research still needs to be explored.

Digital media platforms have also revolutionised data analysis. Tools such as the Statistical Package for Social Sciences (SPSS), Excel, Python, and Tableau are now integral to contemporary data analysis practices. Pearce et al. (2020) noted that digital media have become essential for data analysis, transitioning from manual to digital methods. Šebjan and Tominc (2015) observed a similar trend, although their study did not specifically address the impact on governance research.

The literature review process has similarly benefited from technological advancements, with artificial intelligence playing a crucial role in sourcing literature and identifying current trends. Uno et al. (2024) demonstrated the positive impact of digital media on academic writing and literature reviews, while Awosanya et al. (2024) and Marzuki et al. (2023) underscored the significant influence of digital tools on academic research. However, these studies did not focus on the implications for governance research.

As conceptualised in this study, governance research involves examining the governing processes and administration of a country's affairs, which are closely linked to public administration and decision-making. Governance encompasses six dimensions: rule of law, transparency, accountability, participation, responsiveness, and effectiveness (Fukuyama, 2013). This research explores how digital media has impacted these dimensions, particularly leadership, bureaucracy, and public service delivery.

The shift towards e-governance, characterised by government-to-citizen, government-to-government, government-to-business, and government-to-employee interactions, highlights the evolving nature of governance in the digital age. Studies like Christopher and Turner (2023) have shown that digital media can significantly influence how government services are perceived and accessed, emphasising the need for further investigation into this area. This study aims to fill the gap by examining the impact of digital media on governance research in Nigeria. It addresses the following specific objectives:

a. Ascertain how digital media has affected governance research among scholars in Nigeria.
b. Identify the areas of governance research influenced by digital media.
c. Determine the digital media tools used in governance research.
d. Assess the aspects of governance research impacted by digital media platforms.

By providing empirical evidence, this study contributes to a deeper understanding of the role of digital media in transforming governance research. It offers insights into future research directions in this rapidly evolving field.

Theoretical framework and study thesis

The theoretical foundation for this study is rooted in the Technological Determinism Theory, which is attributed to Marshall McLuhan, who proposed it in 1964 as a framework for understanding the impact of digital media on society. The fundamental assumption of this theory is that human society plays a significant role in introducing new technology within a social system, and this technology, in turn, influences human behaviour. The basic argument of the theory posits a reciprocal relationship between technology and human activities, suggesting that technological advancements directly affect and influence events within a social system (Hauer, 2017).

Technological Determinism Theory is a valuable framework for understanding how technologies impact people and their activities. Jan et al. (2021) highlight that this theory provides a lens through which the interplay between technology and a social system can be understood. Roncallo-Dow and Scolari (2016) further argue that the theory helps comprehend the pervasive influence of technology on societal behaviours and activities. Ley et al. (2013) conducted a study that reported substantial impacts of digital technologies on people's media use and social behaviour, offering empirical support for Technological Determinism Theory.

In the context of governance research, modern technologies, including artificial intelligence and social media platforms like WhatsApp, Facebook, and Gmail, have the potential to impact research methodologies and outcomes significantly (Oghuvbu et al., 2022). This study considers social media platforms such as Facebook, WhatsApp, and Twitter as the new technologies influencing governance research. The influence of digital technologies is evident in how interventions are delivered. Before the advent of digital technologies, interventions were predominantly delivered face-to-face. However, advancements in digital media have transformed intervention delivery, allowing mediated platforms to be utilised. Knox et al. (2019) support this assertion by highlighting the effectiveness of digital technologies in delivering interventions to target audiences.

Based on the theoretical postulations of Technological Determinism Theory, the central thesis of this study is that technological advancements have significantly affected governance

research. Researchers interested in governance have swiftly responded to the power of digital media and are now deploying digital media tools in their research. However, several aspects of this thesis require empirical evidence. For instance, the extent to which digital media has affected governance research among scholars in Nigeria remains to be explored. Additionally, identifying the specific areas of research impacted by digital media, the digital media tools used for governance research, and the aspects of governance research influenced by digital media platforms are crucial areas of inquiry.

Materials and Methods

The methodology of this study is articulated in subheadings as indicated below:

Design of the Study: The researchers employed a descriptive survey research design to evaluate the impact of digital media on governance research. This design systematically collects primary data to describe, explain, or explore a phenomenon (Agama, 2023; Nwabueze, 2023). In this study, the phenomenon examined was digital media and its transformative effect on governance research. The descriptive survey design was chosen for its efficacy in capturing and understanding the changes in governance research dynamics resulting from integrating digital media into the research process.

Target Population: The target population for this study comprised researchers engaged in governance-related studies, specifically experts in public administration and political science. This group was deemed suitable for the study due to their specialised knowledge and focus on governance and public service delivery issues. Given the absence of a comprehensive sampling frame listing all public administration and political researchers, this study's population is considered indefinite.

Sample Size and Sampling Technique: The sample for this study consisted of 218 researchers in public administration and political science. The sample size was determined through a priori power analysis using G*Power Version 3.1. This software is advantageous for sample size determination, providing accurate calculations even without known population figures. For this analysis, the researchers set the effect size and probability level at 0.05, with a confidence level of 95%. The resulting calculation indicated that a sample size of 218 participants was necessary to ascertain the impact of digital media on governance research at a 0.05 level of significance. The result of the G*power analysis is further illustrated in Figure 1 below:
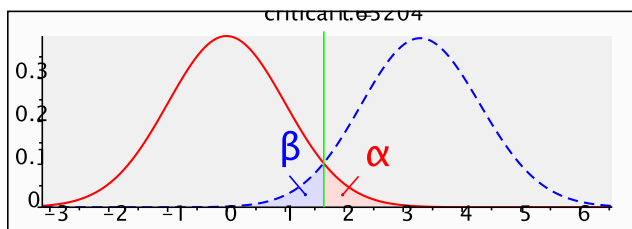

Figure 1: Sample size determination for the study.

The sampling technique employed in this study was the respondent-driven chain referral sampling technique. This method typically starts with identifying initial participants, known as "seeds," who recommend other potential participants. In this study, seeds were determined through targeted announcements on social media platforms. Specifically, announcements were posted in WhatsApp groups frequented by public administration and political science academics. Members of these groups were invited to participate in the survey and were subsequently asked to refer additional potential participants. This referral process continued iteratively until 218 respondents were successfully sampled. It is important to note that this sampling technique was chosen because it effectively reaches a specialised population of researchers within the targeted disciplines.

Data Analysis: The collected data were analysed using descriptive statistics to provide a comprehensive overview of the findings. Measures such as frequencies, percentages, means, and standard deviations were calculated to summarise the responses. This approach facilitated the identification of key trends and patterns in the data, providing insights into the extent of digital media's influence on governance research.

Ethical Considerations: Ethical approval for the study was obtained from the relevant institutional review board. Informed consent was obtained from all participants, ensuring their voluntary participation and the confidentiality of their responses. Participants were informed of their right to withdraw from the study at any time without any repercussions.

Results

This study showed that among the 218 copies of the questionnaire administered to the participants, 202 were filled out, while 16 were incorrectly filled out. This means that the return rate for the study was 93%. The researchers considered this appropriate for data analysis because the 7%. The number of questionnaire copies that were wrongly filled needed to be more significant to affect the outcome of the study. The demographic composition of the participants showed that they were 67% male and 33% female. Most (52%) had doctoral degrees, followed by those with master's degrees (35%). Those with first degrees were only 13%. These findings imply that most participants had terminal degrees, pointing to their experience in research. More than half (78%) of the participants worked in universities, while only 22% were in polytechnics.

Further information showed that the average number of years the respondents had been researching was seven years. This again points to the fact that they were experienced enough to respond to the subject matter. Most (78%) participants published their research findings in journals indexed in Scopus or Web of Science. The result of the study objective is presented below: **Objective one**: Ascertain how digital media has affected governance research among scholars in Nigeria.
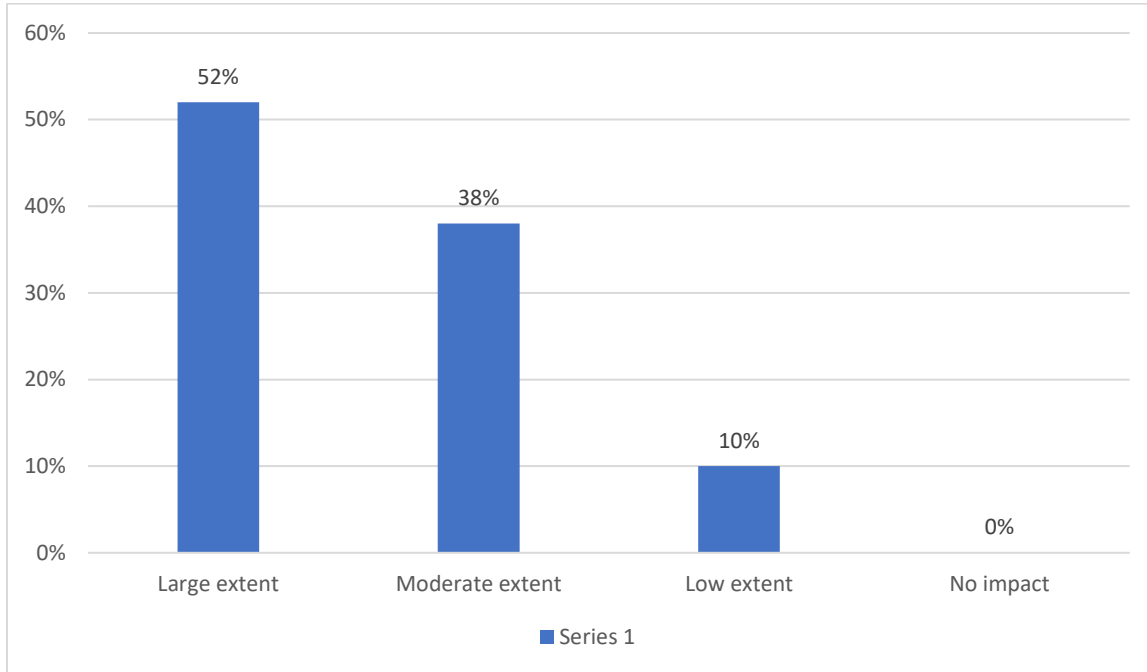
Figure 2: A chart showing the extent digital media has affected research in governance

In Figure 2, the researchers determined the respondents' views on the extent to which digital media platforms have affected research in governance. The researchers found that most participants noted that digital media platforms have affected governance research. None of the participants indicated any impact, even though it was provided as an option. This result shows the contributing role of digital media in governance research.

Objective two: Identify the areas of governance research influenced by digital media.

To achieve the above objective, the researchers assessed data and presented it in Table 1 as shown below:

Table 1: Areas of research in governance that have been affected by digital media

S/N	Items	Mean	SD	Decision
1	Data Collection	3.0	.56	Accepted
2	Data Analysis	2.9	.67	Accepted
3	Literature Review	3.1	.76	Accepted
4	Copyediting	2.8	.89	Accepted
5	Intervention Delivery	2.9	.65	Accepted

The researchers analysed data on the impact of digital media on governance research and presented it in Table 1. Five items were presented and examined using a four-point Likert Scale. The result of the study revealed that all five items. The researchers found that all items had mean scores above 2.5, the basis for accepting or rejecting items. This means that digital media has negatively impacted research in good governance in areas like data collection, analysis, literature review copy editing and intervention delivery.

Objective three: Determine the digital media tools used in governance research.

Table 2: Digital media tools that have affected research in governance

S/N	Items	Mean	SD	Decision
1	Academic writing tools	2.7	0.43	Accepted
2	Journal selection tool	2.7	0.90	Accepted
3	Reference management tools	3.2	0.54	Accepted
4	Copyediting	2.9	0.96	Accepted
5	Academic search engines	3.0	0.34	Accepted
6	Data analysis tools	3.1	0.96	Accepted

The aim of computing Table 2 was to determine the digital media tools that have been found useful in research on governance. The study's results showed that all six items were accepted as useful tools. What this means is that the manual approaches that were hitherto used by researchers in public administration are gradually being replaced by digital media tools.

Objective four: Assess the aspects of governance research impacted by digital media platforms.

Table 3: Aspects of governance research that have been affected by digital media

S/N	Items	Mean	SD	Decision
1	Government-to-citizens research	2.6	0.32	Accepted
2	Government-to-government research	3.0	0.34	Accepted
3	Government-to-business research	3.2	0.98	Accepted
4	Government-to-employee research	2.8	0.12	Accepted

The researchers examined the aspects of governance research that have been affected by digital media. The four types of e-governance were used as the dimensions of measure, and the participants reported that research related to the four aspects of e-governance has been significantly

affected by the wave of digital media. The implication is that researchers in public administration and political science acknowledge the effect of digital media on the research that is conducted related to governance.

Discussion of Findings

This study aimed to determine the impact of digital media on governance research, employing a descriptive survey research design with a sample size of 218 researchers in public administration and political science. The data was collected through an online survey. The findings indicate that digital media platforms have significantly influenced governance research, underscoring their critical role in this domain.

The study extends the work of Okereka et al. (2024), who reported the impact of digital media on management and social sciences research but did not provide empirical evidence specific to governance research. This study fills that gap by narrowing the focus to governance, offering detailed insights into how digital media affects this discipline. This specificity helps us understand how digital media reshapes research methodologies and governance outcomes.

Furthermore, the study identified specific aspects of governance research impacted by digital media, including data collection, data analysis, copyediting, literature review, and intervention delivery. This finding builds on Ohme et al. (2024), who discussed the general influence of digital media on research but needed more discipline-specific details. By providing concrete examples from governance research, the current study offers a more straightforward interpretation of trends and the effectiveness of digital media tools in this field. The issue of good governance is critical because there appears to be a high level of dissatisfaction among the Nigerian public regarding the quality of services they receive from Nigerian leaders. There is the thinking that Nigerian leaders do not always represent the public interest. It is perhaps because of this thinking that when, in 2020, there was a violent protest against police brutality, many public institutions were destroyed.

The general thinking among the Nigerian public is that they do not enjoy good governance, and their trust in government services could be higher. As a result of this, public administrators and researchers have many issues concerning governance to examine. They need to discuss how to improve government services in Nigeria and how to build public trust. Such studies can be done with the help of digital media platforms. Identifying digital media tools used in governance research is another crucial contribution. The study highlights tools for academic writing, copyediting, journal selection, reference management, academic search, and data analysis. This extends the findings of Facca et al. (2020), who examined the impact of digital media on research without detailing specific tools. The current study's focus on these tools provides valuable empirical data for understanding how digital media facilitates governance research processes.

Finally, the study shows that digital media platforms influence various aspects of governance research, including government-to-citizen, government-to-employee, government-to-government, and government-to-business interactions. This finding adds empirical evidence to Avijit's (2023) theoretical postulations on e-governance dimensions, illustrating how digital media platforms specifically affect research in these areas. By demonstrating the practical implications of digital media on these facets of governance research, the study enriches the ongoing discourse on e-governance and the role of digital technologies.

In summary, this study provides evidence of the transformative impact of digital media on governance research. It highlights specific aspects and tools influenced by digital media, offering a nuanced understanding of its role in enhancing research processes and outcomes in governance. These findings contribute to the broader discourse on technological determinism, demonstrating how advancements in digital media reshape academic research in governance and potentially other disciplines.

Theoretical Implications

The findings of this study have significant theoretical implications, particularly for the technological determinism theory. This theory posits that technology shapes human behaviour and societal structures. Our study supports this by demonstrating how digital media platforms have transformed governance research, influencing data collection, analysis, and dissemination processes. The evidence aligns with McLuhan's (1964) assertion that technology profoundly impacts social systems. Additionally, the study expands on Roncallo-Dow and Scolari's (2016) application of technological determinism by providing empirical data on the specific impacts of digital media on governance research, thus enriching the theoretical framework with contemporary relevance and contextual specificity.

Practical Implications

The practical implications of this study are extensive for researchers, policymakers, and academic institutions. For researchers, the findings underscore the importance of integrating digital media tools into their methodologies to enhance efficiency and reach. Tools like academic writing software, data analysis pragrammes, and reference management systems can significantly streamline research processes. Policymakers can utilise these insights to promote digital literacy and support the development of digital infrastructure in educational institutions. Academic institutions, particularly in Nigeria, should invest in digital resources and training pragrammes to equip researchers with the necessary skills to leverage digital media effectively in their work.

Limitations and Suggestions for Further Study

Despite its contributions, this study has several limitations. The sample size, while sufficient for the study's scope, may not represent all researchers in governance, particularly those in less accessible regions or smaller institutions. The study's reliance on self-reported data from an online survey may also introduce response biases. Future research should consider employing mixed-method approaches, combining quantitative surveys with qualitative interviews or focus groups to obtain a more nuanced understanding of the impacts of digital media on governance research. Moreover, expanding the study to include researchers from other countries would provide comparative insights and enhance the generalisability of the findings. Finally, another limitation of the study was that the researchers needed to examine the challenges they faced in using digital media platforms for research. This is also important because Nigeria is a developing country with many challenges that could limit access to the Internet.

Conclusion

This study has provided empirical evidence of the significant impact of digital media on governance research. By highlighting specific aspects and tools influenced by digital media, the

study underscores the transformative potential of these technologies in enhancing research processes and outcomes. The findings support the technological determinism theory, demonstrating how advancements in digital media reshape academic research in governance. Practical implications suggest more significant investment in digital resources and training to fully harness these technologies' benefits. Future research should address the study's limitations and further explore comparative studies across different regions to understand digital media's role in governance research.

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Conflict of interest

Authors declare no conflict of interest

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