

**Impact of Digital Media on Research in Law, Political Science, Fine and Applied Arts,  
Music, and Communication**

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## Abstract

**Background:** Although researchers admit that digital media platforms have had a significant impact on different aspects of life, limited studies have compared how digital media platforms have impacted research in different areas.

**Objective:** This study aimed to determine the impact of digital media on research in communication, fine and applied arts, music, political science, and law.

**Methodology:** The researchers used a descriptive survey for the study. The sample size was 250 participants from the five disciplines examined. The questionnaire was used as the instrument for data collection, and data were analysed using descriptive statistics like mean and standard deviation. Inferential statistics like multivariate analysis of variance (MANOVA) were also used, and the results were presented in tables.

**Results:** The researchers found that digital media platforms have affected research in the five disciplines examined. Digital media tools have affected research idea generation, sampling, literature review, data collection, and analysis. Comparatively, digital media tools have affected data collection in communication and sampling more, data analysis in political science more compared with other disciplines, and literature review in law more than the other disciplines examined.

**Conclusion:** Digital media platforms have significantly affected research in communication, music, fine and applied arts, political science and law.

**Unique contribution:** This study has suggested a model for understanding the impact of digital media in research. This empirical evidence could guide future debates on the role of digital media in research in the five disciplines and other disciplines, generally.

**Key Recommendation:** Further studies should explore the impact of digital media in research in other disciplines and evaluate the contributing role of the level of education in participants' responses.

**Keywords:** communication; digital media; fine and applied arts; law; political science research

## Introduction

The world has significantly changed, even as recently as ten years ago. We are now in a world where digital media platforms increasingly influence task planning, execution, implementation and monitoring. Digital media describes communication platforms that are used for the electronic exchange of ideas as opposed to face-to-face. Examples of digital media include Facebook, TikTok, Instagram and Twitter. They also include websites and applications for mediated communication. Digital media also includes video-sharing platforms like YouTube and audio-sharing platforms like Podcasts. Schroeder (2017) notes that digital media platforms have been playing huge roles in propelling societal changes in the last century to the extent that changes in society now revolve around digital media.

Research is one of the areas that has been significantly affected by digital media. For example, before the advancement in digital that gave rise to digital media, it was difficult to send

articles for publication in journals electronically. A person from Nigeria, for example, could not easily send a paper to a journal based in the United States of America. It would take days and months for such an article to be delivered by mail. However, with the improvements in digital, it became easier to email a manuscript from Nigeria to the United States of America, for example, which could be delivered in seconds. However, over time, changes in digital media have continued to change different aspects of research before the paper submission process.

Digital media significantly affects the research process itself. With the advancements in digital technology, processes that were once manually now heavily rely on digital media for their completion. Gunter et al. (2002) corroborate that digital media have been found useful in conducting research to the extent that some researches are conducted only on digital media while others are conducted both through digital media and manually. Edwards et al. (2013) argue that digital media platforms have changed critical aspects of research, such as methodology. This is particularly true because the emergence of digital media platforms has led to what is called digital ethnography.

In this study, the researchers focused on the impact of digital media on research in five disciplines. The disciplines are communication, fine and applied arts, music, law and political science. The aspects of the research that were examined included research idea generation, literature review, sampling, data collection, and data analysis. These areas were chosen because of their centrality in the research process. For example, research idea generation describes the process whereby a person is able to get ideas that can be researched. Greg and Silva (2013) did a study wherein they used secondary data and argued that digital media are helpful in the generation of creative ideas. Pissarra and Jesuino (2005) conducted an experimental study to determine the impact of computer-mediated communication in generating new ideas. The result of the study revealed that when compared with face-to-face communication, communication mediated by digital technologies resulted in a better flow of ideas and the emergence of new conceptual classifications. Although the study of Pissarra and Jesuino offers insights into the role of digital media in research idea generation, it was not fully focused on research ideas but on idea generation generally.

Literature review is another aspect of research that was examined in this study. Typically, a literature review is the aspect of the study in which a researcher tries to find out what has been done in an area. Typically, the essence is to understand what other researchers have found and the gap that a researcher hopes to fill. The literature review segment is crucial because it also guides a researcher in the discussion of findings. A robust literature review is essential because it helps in hypothesis development, theoretical argument, instrument development, and suggestions for further studies. Denney and Tewksbury (2012) reveal that a literature review is crucial because it helps in showing the need for a study. In the opinion of Ridley (2008), a literature review allows a researcher to identify theories and studies that have shaped the current study. Empirical evidence (Hynninen, 2018; Parrella et al., 2021) has shown that digital media platforms have significantly impacted literature review.

Data collection is another important aspect of research that can potentially be affected by the emergence of new technologies. As a critical stage in research, data analysis entails the gathering of research data. Data collection could be primary or secondary, and each type of data can potentially be influenced by digital media platforms. Okereka et al. (2024) conducted a study

to determine the impact of digital media on data collection in social and management sciences and reported that digital media platforms are now influencing the data collection process. One limitation of the study of Okereka et al. (2024) is that the researchers did not examine specific disciplines. Instead, they focused on social and management sciences, which are made up of many disciplines.

Sample size determination can also be potentially affected by digital media platforms. For example, with the emergence of digital media, software and applications have been developed for the determination of sample sizes. Examples of some of the applications include the G\*power programme for sample size determination and the online Australian calculator for sample size determination, among others. These programmes and applications now increasingly been used to determine the exact sample size in studies. Research (Anderson et al., 2017; Schoemann et al., 2017) has shown that digital media platforms are now essential in sample size determination. Digital media platforms have also been found useful in the implementation of sampling techniques. A good example here is the respondents-driven chain referral sampling technique, in which the link is forwarded to potential respondents. However, less attention has been focused in understanding the impact of digital media in sample size determination and sampling procedures in specific studies.

Finally, digital media platforms are offering possibilities for data analysis. Before the advancements in technology, the process of data analysis was mainly done manually. However, with the emergence of digital media platforms, along with different applications, data analysis has also been transformed. Applications like Statistical Package for Social Science (SPSS), Microsoft Excel, and several other applications have been deployed for data analysis in research. Evidence (Kikooma, 2010; O'Halloran et al., 2018) in the literature suggests that digital media platforms are helpful tools for data analysis. Based on the above, the current study examined the impact of digital media on research in five areas of communication, fine and applied arts, music, law and political science.

### **Objectives of the study**

The general objective of this study was to determine the impact of digital media on research in communication, fine and applied arts, music, law and political science. The specific objectives of this study were:

1. To determine the extent to which digital media contributes to research idea generation in law, political science, communication, fine and applied arts and music.
2. To examine the impact of digital media in the literature review of research in law, political science, fine and applied arts, music, and communication.
3. To determine the impact of digital media on sampling in research in law, political science, music, fine and applied arts and communication.
4. To determine the impact of digital media on data collection in law, political science, fine and applied arts, music and communication research.
5. To ascertain the impact of digital media on data analysis in research in law, political science, fine and applied arts, music and communication.

## **Materials and Methods**

The methodology in this study was presented with the use of the following sub-headings:

**Design of the Study:** This study's design was based on the descriptive survey, which entails collecting primary data to explain, explore, or describe an issue. The researchers used this design to describe the impact of digital media on research in the selected key areas of law, political science, fine and applied arts, music, and communication.

**Target Population:** The study's target population included researchers in law, political science, fine and applied arts, music, and communication. Unfortunately, there is no list of researchers in the selected five areas in Nigeria, making it difficult to describe the sample in terms of numbers.

**Sample Size and Sampling Technique:** A total of 250 researchers were sampled in this study. Hence, there was no sampling frame for the study; the researchers decided to sample 50 participants from each of the disciplines examined. A combination of quota sampling and purposive sampling techniques were used for the study. Using the quota sampling technique, the researchers assigned 50 copies of the questionnaire to each of the five disciplines that were examined. Using a purposive sampling approach, the researchers were able to sample participants in the specific areas that were targeted. Before a participant was included in the study, such a participant was required to be an active researcher and must have published at least one article in a year in the last five years. The person must also have at least a master's degree in their area of study. The sampling of the participants lasted for two months before all the participants were sampled.

**Instrument for data collection:** The researchers used a structured questionnaire to collect data for the study. A questionnaire is typically a good option for data collection because it assists researchers in collecting large volumes of data. The researchers designed the questionnaire based on the literature review. The questionnaire collected demographic information like age, gender, and educational level. Also, the researchers collected psychographic information that bothers the objective of the study. The researchers carried out a pilot study with 20 participants to determine the reliability of the instrument. The approach that was used in the reliability was test-retest with two weeks of interval. The result of the analysis showed a correlation coefficient of 0.76, suggesting that the instrument was reliable. The researchers determined the validity of the instrument using three experts. The experts determined the appropriateness of the items as well as their clarity.

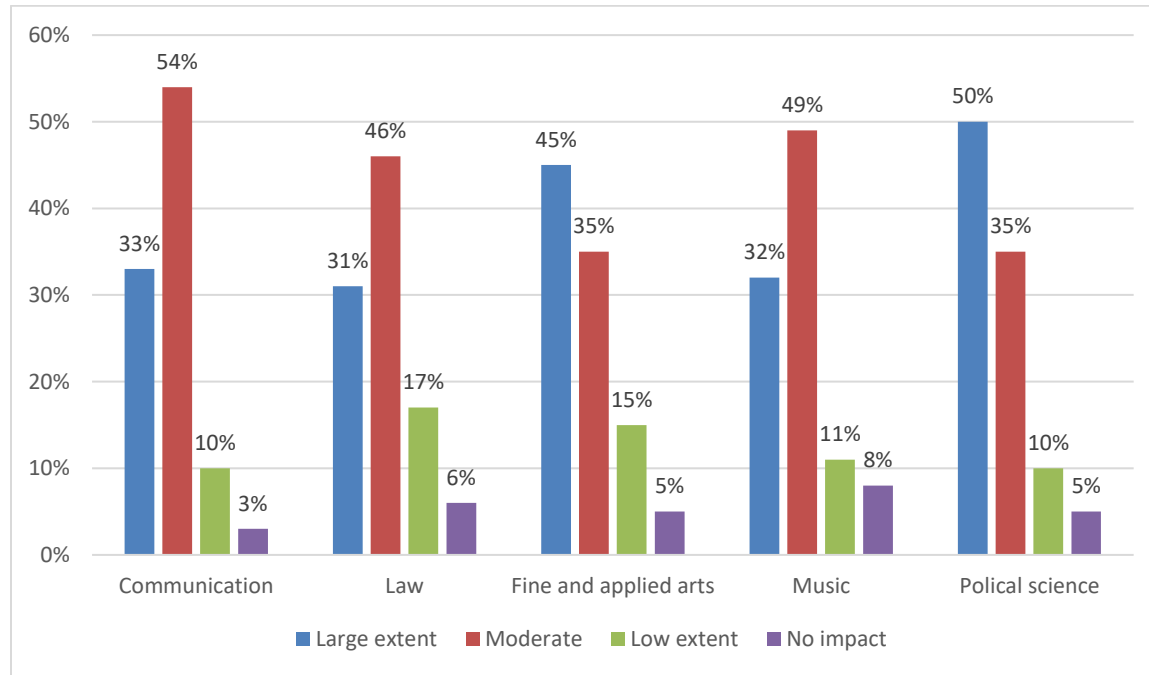
**Data Analysis:** The collected data were analysed using descriptive statistics to provide a comprehensive overview of the findings. Measures such as frequencies, percentages, means, and standard deviations were calculated to summarise the responses. The researchers also used multivariate analysis of variance (MANOVA) among the inferential statistics.

## **Results**

From the 250 copies of the questionnaire which were administered to the participants, 230 copies were properly filled and found useful. This represents a return rate of 92% which the researchers considered as high. Among the 20 copies that were not returned, 7 were from communication, 3 from music, 2 from fine and applied arts and 4 each in political science and law. The sample was

59% male and 41% females. Regarding the educational background of the respondents, 34% had Ph.Ds, 66% of them had masters. Regarding employment status, 67% of them were employed in universities, 20% in polytechnics and 13% were independent researchers. The result of the study is thus, presented based on the objectives of the study thus:

**Objective one:** To determine the extent digital media contribute to research idea generation in law, political science, communication, fine and applied arts and music.



*Figure 1: The extent digital media have impacted research idea generation.*

The researchers in Figure 1 determined the extent to which digital media have impacted research idea generation. The result revealed that there was a difference in the responses of the participants. For example, while the majority of the communication, law and music scholars reported a moderate extent, those in political science and fine and applied arts indicated a large extent. Overall, the result indicated that digital media platforms have significantly impacted research idea generation.

**Objective two:** To examine the impact of digital media in literature review in research in law, political science, fine and applied arts, music and communication.

**Table 1: MANOVA analysis on the impact of digital media on literature review**

S/N	Items	X <sup>2</sup> <sub>1</sub>	SD <sub>1</sub>	decision	Sig	f <sup>2</sup>
1	Communication research	2.9	.23	Accepted	.02	0.15
2	Fine and applied arts research	3.0	.12	Accepted	.01	0.17
3	Music research	2.8	.87	Accepted	.04	0.16
4	Law research	3.0	.54	Accepted	.02	0.19
5	Political science research	2.8	.29	Accepted	.01	0.16

The researchers computed Table 1 to examine the impact of digital media on literature review. The study's results showed that digital media has significantly affected the literature review in the five disciplines examined. The study revealed the combined effect of digital media on literature review on researchers in the selected disciplines,  $p=.02$ ; Wilks' Lambda=.611. The analysis also showed that the p-values for all the groups were below 0.05, and the effect sizes of the impact were equally moderate.

**Objective three:** To determine the impact of digital media on sampling in research in law, political science, fine and applied arts, music and communication research.

**Table 2: MANOVA analysis of the impact of digital media on sample size selection**

S/N	Items	$X^2_1$	$SD_1$	decision	Sig	$f^2$
1	Communication research	3.5	.23	Accepted	.01	0.20
2	Fine and applied arts research	2.6	.78	Accepted	.01	0.16
3	Music research	2.8	.34	Accepted	.01	0.17
4	Law research	3.1	.12	Accepted	.02	0.16
5	Political science research	2.7	.19	Accepted	.01	0.14

The aim of computing Table 2 was to determine the impact of digital media on sample size selection in research in five selected disciplines. The result of the study revealed the combined effect of digital media on sample size selection in research in the selected disciplines,  $p=.01$ ; Wilks' Lambda=.611. All the participants reported that digital media platforms have impacted sample size selection in their research fields. The result also showed that the effect size score was larger for communication scholars than for other researchers.

**Objective four:** To determine the impact of digital media on data collection in law, political science, fine and applied arts, music and communication research.

**Table 3: MANOVA analysis on the impact of digital media on data collection**

S/N	Items	$X^2_1$	$SD_1$	decision	Sig	$f^2$
1	Communication research	3.2	.67	Accepted	.01	0.16
2	Fine and applied arts research	2.9	.43	Accepted	.03	0.17
3	Music research	3.0	.78	Accepted	.02	0.18
4	Law research	3.0	.90	Accepted	.03	0.15
5	Political science research	3.1	.43	Accepted	.04	0.18

The aim of computing Table 3 was to determine the impact of digital media on research in five selected disciplines. The result of the study revealed the combined effect of digital media on research in the selected disciplines,  $p.01$ ; Wilks' Lambda=.913. All the participants reported that digital media platforms have impacted data collection in their research fields. Communication researchers scored higher regarding digital media's impact on research than their counterparts in other fields. This was followed by those in political science. Those who were fine and applied arts reported the lowest mean score. The result also showed that the effect size score was larger for communication scholars than for other researchers.

**Objective five:** To ascertain the impact of digital media on data analysis in law, political science, fine and applied arts, music and communication research.

**Table 4: MANOVA analysis on the impact of digital media on data analysis**

S/N	Items	$X^2_1$	$SD_1$	decision	Sig	$f^2$
1	Communication research	2.8	.78	Accepted	.01	0.19
2	Fine and applied arts research	2.6	.32	Accepted	.03	0.15
3	Music research	2.5	.89	Accepted	.02	0.16
4	Law research	2.6	.78	Accepted	.03	0.17
5	Political science research	2.9	.34	Accepted	.04	0.18

The aim of computing Table 4 was to determine the impact of digital media on data analysis in five selected disciplines. The result of the study revealed the combined effect of digital media impact on data analysis on researchers in the selected disciplines,  $p=.02$ ; Wilks' Lambda=.810. All the participants reported that digital media platforms have impacted data analysis in their research fields. The p-values for all the groups were also below 0.05, and the effect sizes of the impact were equally moderate, based on the guidelines of 0.02 small, 0.15 moderate and 0.35 large (Cohen, 1988).

### Discussion of findings

The goal of this study was to determine the impact of digital media in research in areas like law, communication, political science, fine and applied arts and music. The researchers pursued this objective using a descriptive survey research design. The participants were 250 researchers, 50 of whom came from each examined discipline. The researchers collected data using a structured questionnaire. The areas of focus were data collection, data analysis and literature review.

The result of the study revealed that the participants in communication, law, fine and applied arts, music and political science reported that digital media platforms have significantly affected research idea generation. This result is an extension of that of Greg and Silva (2013), who examined the impact of digital media on creative idea generation but did not do so within the context of research. Pissarra and Jesuino (2005) also examined computer-mediated communication and idea generation but did not do so from the perspective of research. However, in the current study, the researchers examined the impact of digital media on research idea generation. Understanding the impact of digital media on research idea generation is crucial because it offers a fresh perspective on the impact of digital media on research.

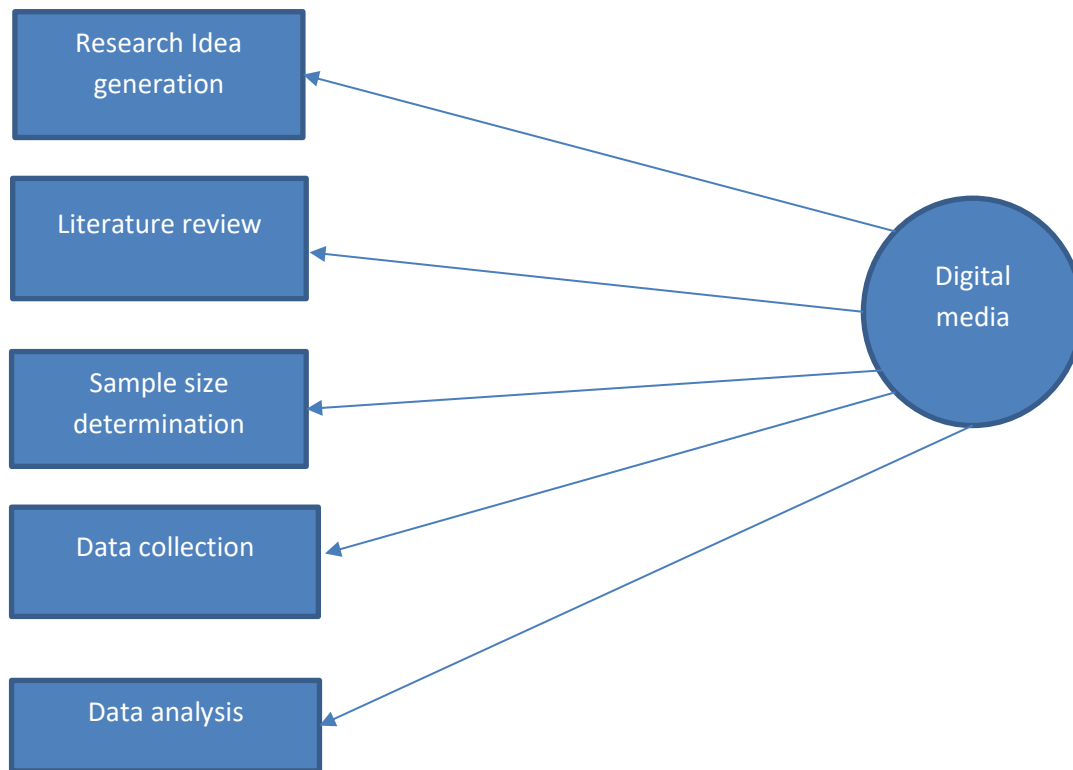
The researchers examined the impact of digital media on literature review in five areas, namely communication, fine and applied arts, music, political science and law. The result of the study showed that the participants indicated that digital media significantly affected the literature review process. The result equally revealed that digital media have affected research in law more than the other areas examined. This result has extended the study of Denney and Tewksbury (2012), who reported that digital media platforms have been found useful in the literature review. However, the study of Denney and Tewksbury did not examine researchers in communication, fine and applied arts, music, political science and law. In every study, literature review is important because it helps researchers to connect with previous studies in a particular area and identify gaps regarding aspects that have yet to receive significant attention.



Another aspect of the impact of digital media on research that was examined was sample size selection. The result of the study revealed that the researchers were involved in communication, fine and applied arts, music, law, and political science. All the participants reported that digital media platforms have significantly affected research in these areas. This study has extended that of Anderson et al. (2017) and Schoemann et al. (2017), who showed that digital media has given rise to technology-based tools for sample size selection but did not offer information on how this has affected specific disciplines.

The researchers equally found that the researchers in all five areas reported that data collection has changed as a result of the increasing use of digital media in research. Comparatively, the score was higher for communication researchers than those in the other disciplines. This result is similar to that of Okereka et al. (2024), whose study revealed that digital media platforms have changed the approaches to data collection. The difference between the study of Okereka et al. and the current study is that they focused on management sciences only. However, in the current study, the researchers examined the impact of digital media on specific disciplines. Management sciences is rather too broad and lacking in specificity. By providing empirical evidence regarding the impact of digital media on data collection in five disciplines, the study has shown that the approaches to data collection in certain disciplines are changing as a result of the impact of digital media.

The researchers also examined the impact of digital media on data analysis in five areas like law, political science, communication, music and fine and applied arts. The result of the study showed that the participants reported that digital media platforms have substantially changed the face of data analysis. The result revealed that researchers in political science reported a higher impact of digital media on data analysis than the other categories. This study has extended that of O'Halloran et al. (2018), who examined the impact of digital media on data analysis but did not focus on any specific discipline. However, in the current study, we have focused on specific disciplines. Data analysis is a critical aspect of research because when data are collected, they need to be analysed and interpreted to make meaning clearer. It is one thing to collect data but entirely another to analyse the collected data. The analysis process is crucial because it helps researchers derive meaning from data collection. According to Kikooma (2010), data analysis is important in research because it will be difficult for researchers to draw conclusions from studies without it. Based on the result of this study, the researchers proposed a model for explaining the impact of digital media on research thus:



*Figure 2: A model for understanding the impact of digital media on research*

The model of the study, as presented in Figure 2, reveals that digital media platforms have significantly affected all the key areas of research. From idea generation, where the research ideas are incubated and framed, to literature review, where a researcher is able to understand what is known in the literature, develop hypotheses and theorise, to sample size determination, where a researcher decides the subject to study, to data collection, where relevant data are collected to enable a researcher to draw conclusions to the actual analysis where the collected data are examined. All these processes are now heavily influenced by the powerful waves of digital media.

### **Conclusion and Recommendations**

The researchers conclude that digital media have significantly affected research in areas like idea generation, literature review sampling, data collection and data analysis in specific areas like communication, fine and applied arts, music, law and political science. This study has made practical, scholarly, and theoretical contributions. In the area of practical contribution, the study has provided practical information that could guide the understanding of the impact of digital media in research. In the area of scholarship, the study has provided empirical evidence that could be useful to other researchers who want to understand the impact of digital media in research. Theoretically, information from the study could be useful for theory testing and even the postulation of new ones. Although this study has made contributions, it also has some limitations. First, the researchers did not examine the impact of digital on the responses of the participants. In the second place, the researchers did not examine the impact of the education level and publication

frequency on the participants' responses. It is recommended that further studies should be conducted to take care of the identified areas. Finally, it is recommended that institutions should continue to train and retain researchers to enable take advantage of digital media tools for research purposes.

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