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Digital Media and Data Collection in Social and Management Sciences Research in Nigeria

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Abstract

Background: Digital media platforms are among the greatest modern advancements in the creation of internet-based knowledge and interaction that aid the improvement of academic research. Digital media applications can efficiently and economically gather vast amounts of data in comparatively short amounts of time and are used globally. Despite their importance worldwide, researchers have paid less attention to the effectiveness and reliability of using online platforms for data collection in universities in Nigeria.

Objective: The study examined the effect of digital media on data collection in social and management science research in Nigeria with focus on the faculty of social and management sciences, Delta State University, Abraka.

Methodology: The study employed a cross-sectional research design and gathered data from 750 students and staff at the Faculty of Social and Management Sciences, Delta State University, Abraka. The respondents were sampled using the systematic sampling technique. The t-test, correlation and regression analysis were used to analyse data for the study.

Result: Digital media significantly and positively influence data collection in social and management science research in Nigeria. Digital media promise more sample size, more sample plurality, greater flexibility and simplicity, less time and money expenditures, and many other enticing features as a means of gathering data.

Conclusion: Digital media has a positive and significant impact on data collection in social and management science research in Nigeria. Digital media platforms are extremely promising channels for researchers.

Unique Contribution: The study has provided empirical evidence for understanding the nexus between digital media and data collection in social and management science research in Nigeria.

Key Recommendation: The promotion of digital media should be a priority for university management, as the most recent technological advancements represent a positive step in the right direction. This will promote the use of digital media for online data collection by academic staff and students.

Keywords: Digital media, data collection, academic research**,** ethical issues

Introduction

Since the first modern digital computers were created, both computational capability and the capacity for storage have grown rapidly. Billions of people now have access to and control over digital media through personal computers and smartphones. Digital media can be created, transmitted, and viewed by a wide range of electronic gadgets, including drones and digital cameras. The way in which digital media, in conjunction with the World Wide Web, have transformed 21st-century society is often compared to the historical effects of the printing press on the economy, culture, and social sphere. The Information Age, also referred to as the digital revolution, began with the swift and significant change that initiated the transition from an industrial to an information-driven economic growth (Ivwighren et al., 2023; Ohme et al., 2023). Yeykelis et al. (2014) claimed that there is some ambiguity surrounding the definitions of digital media as a result of the shift from an industrial to an information-based economy. The terms "digital media", "new media", "multimedia," and others have an association with the technological advancements and cultural influence of digital media. Some refer to this combination of digital media and other media, as well as cultural and social elements, as "new media" or "the new media". Similar to this, it appears that digital media requires trans-literacy, media knowledge, or digital literacy - a novel set of interpersonal abilities. These abilities include not only reading and writing but also using the Internet, evaluating sources, and creating digital content. The idea that we are headed towards a completely digital, "paperless" community (Stier et al., 2020) feeds into the fear that humanity may be in a digital dark age, where traditional media are less useful on modern gadgets or using modern methods.

According to Otto, Thomas et al. (2022), multimedia books along with other media-inclusive educational programmes have transformed primary, secondary and tertiary education, while e-books as well as independent publishing are evolving the book industry. Digital media has given rise to new academic disciplines like the fields of digital humanities, the internet background as well as a new type of scholarship known as digital scholarship. It has altered the function of libraries in society as well as how they are used. Digital media is causing uncertainty and transition in all major media, communications, and academic endeavours. Digital media has disrupted the publishing process, journalism, recreational activities, trading, learnig and politics when paired with the advent of the internet and individual computers. The open content activity, in which producers of content willingly cede some or all of their constitutional entitlements to their creations, has been sparked by digital media's newfound issues to intellectual property and copyright legislation (Ohme & Araujo, 2022). We may be entering the Information Age, a period of industrial history marked by the widespread use of electronic media and its impact on society. This could usher in a society devoid of paper documents, where all forms of media are created and accessed through computers and smart-phones. The digital divide, antiquated copyright regulations, restrictions, and the possibility of a "digital dark age," in which outmoded media becomes impossible to modern or enhanced information systems, are some of the obstacles still facing the shift to digital media. The impact of digital media on the culture and society at large is significant, extensive, and multifaceted (Otto et al., 2022).

However, managing digital media influence research in an atmosphere of interaction increasingly governed by online networking sites is challenging as people gain information at their fingertips on an ever-increasing number of devices and contexts. Consequently, there is growing recognition that ignoring access content in digital media surroundings complicates theory development (Valkenburg, 2022). As we outline below, knowing what news or articles citizens read, what media outlets youngsters view, and the manner in which social media websites systematically customise content displayed to clients are crucial for comprehending media content impacts in modern times. Social and management science researchers have been working hard to identify alternative ways to measure behavioural trends that reduce the response rate and burden, particularly in respect to effort of those involved, while striving to capture the previously unobtainable degree of depth of the landscape of media platforms. This is because over the past few decades, the percentage of respondents to questionnaires has decreased, and it has become more difficult to get participants to disclose their specific usage of digital platforms.

Furthermore, there is not much consensus between tracking data and self-reported measurements regarding the amount and duration of exposure, which suggests that measuring exposure to content via self-reports, presents a more serious obstacle. As a result, a lot of current projects are focused on gathering pre-existing digital evidence from the online platforms that they frequent (Stadel & Stulp, 2022). During the data collection phase of empirical research, a number of decisions are made, including the particular kind of research methodology to use, the sampling techniques used, the use of control variables and their specific selection, and the handling of data that is unavailable. Digital media as a tool for research practice has grown in popularity in recent years. Actually, electronic data collection and digital media surveying have the ability to transform various fields of study because they facilitate bigger sample sizes, simplify data collection, and yield larger amounts of representative data. However, some scholars doubt its usefulness as well as its practicality. As far as we are aware, no research on the effectiveness and reliability of using online platforms for data collection in universities has been done in Nigeria. Therefore, this study examined digital media and data collection in social and management sciences research in Nigeria, with a focus on the faculty of social and management sciences at Delta State University, Abraka.

Review of Related Literature

Communication that is encoded in a format that a machine can read is considered digital media. On computerised devices, digital media can be developed, observed, shared, altered, and preserved. Examples of digital media include computer programmes and software, digital photos, video games, digital video, internet pages and websites, data and databases, social media, digital audio (such as mp3s), and e-books. Print media, like magazines, newspapers, and other printed materials, and other typical or analogue media, like digital media, film, or audio tape, are commonly compared with digital media (Kabir, 2016). Since the use of digital media can influence the results of learning in a range of contexts, this work does not restrict its focus to technologies that are formally and fully integrated into learning and instruction only. There is evidence from a meta-analysis that compare learning environments without and with technology that digital media can improve the academic achievement of students. Digital media can help with teamwork and interaction through messaging apps like WhatsApp and video-conferencing services like Skype and Zoom. According to Grosch (2012), research groups may be formed by students themselves or specifically for instruction, such as a computer-based collaborative endeavour like break-out rooms.

Here, "digital media" refers to technological media that are used to communicate or spread information, such as electronic text, audio, video, or image representations. More precisely, these digital media might be web apps that work on mobile devices, such as tablets, laptops, and smart-phones, as well as computers. These applications are not restricted to any particular application; they can be websites, e-mail, e-books, and other learning environments platforms (Ivwighren & Ogwezi, 2023). Digital media was utilised for academic purposes, and the ones deemed most suitable for university students included group discussions, assignments, preparation for exams, personal research and development, and preparation for ongoing assessments. Students and university workers benefit from a number of reference services that have been effectively implemented with digital media. One of the most often mentioned benefits of students using digital media is that it facilitates peer and academic community communication and sharing of knowledge (Khan, 2017). Additionally, digital media is beneficial for lecturers who teach students because it allows them to share educational resources, exchange ideas, read through the research of their colleagues, stay up to date on research trends, and most importantly create their own expert networks (Akram & Kumar, 2017).

Digital media, according to Mbodila et al. (2014), are among the greatest modern advancements in the creation of internet-based knowledge and interaction and aid in the improvement of academic research. These days, a lot of people accept digital media such as Facebook, Twitter, WhatsApp, Instagram, Skype, Zoom, Academia, Telegram, and YouTube as legitimate ways for people to communicate and access information on a global scale (Ajayi & Ajayi, 2020). Furthermore, Aczel (2014) asserts that digital media improves academic research literacy which encompasses, among other things, computer proficiency, and visual literacy. Thus, blogs, multimedia distribution devices, wikis, interactive platforms, and digitally produced worlds are some of the technological underpinnings of social media. These social media foundational tools support digital literacy while encouraging user interactions and digital communication. Ahmed (2018) listed the top ten (10) digital media sites that students use for learning. These included Zoom, Twitter, Skype, Facebook, Instagram, LinkedIn, Telegram, YouTube, WhatsApp, and ResearchGate. Ahmed (2018) claim that these digital media sites give faculty and students the chance to interact and share knowledge. According to Niu (2019), students reported using Facebook, Telegram, YouTube, Zoom, Twitter, and Skype to help them with their studies and research.

Challenges of Digital Media in Academic Research

Copyright Issues: The laws governing intellectual property along with copyright are severely challenged by digital media. Copyright laws are generally regarded as antiquated, and the ease with which digital media can be created, altered, and shared makes it difficult to enforce them. For instance, it's probably against the law in several nations to share popular memes online due to copyright laws. Many prevalent Internet tasks, like posting another person's digital mediaure to a Twitter or Facebook account, encompassing a hit song on a video hosted on YouTube, or creating digital arbitration, are illegal (Ajayi & Ajayi, 2020).

Technical and Methodological Challenges: Using data from digital media for any reason first raises a number of significant technical issues. All things considered, considerable computer skills are needed to gain entry to the data and use it for analysis skills that are currently rather scarce.

This means that businesses must either hire knowledgeable employees or hire a private advisory service with a focus on social data analytics. While some pre-made solutions are available, they provide little insight for those unfamiliar with the system's inner workings. In addition, organisations that want to do their own analytics will require a sizable IT infrastructure to assist them. Taking part in projects like monitoring the nation's mood on Twitter requires a computer system that can gather and store a large amount of data. Because storage is becoming more and more affordable, small and medium-sized businesses can still afford this infrastructure. However, the associated costs are still something to think about (Golbeck & Hansen, 2013; Niteen, 2020).

Perceived Sentiment: Regarding digital media research, one major issue is how much sentiment measured on these networks can be traced back to "real people." Because digital media is so important and valuable commercially, many professional organisations actively work to shape public opinion. This happens via active participation in forums on these platforms as well as more concurringly for our purposes, the creation of phoney accounts with the intention of spreading misinformation, inflating the number of friends and followers of specific users, or otherwise altering the appearance of the social media landscape as a whole from what it would "naturally" appear. Students at the OII at Oxford University have documented this practise, which is sometimes referred to as "astroturfing", during the United States presidential election of 2012 (when Mitt Romney's Twitter following was abruptly and drastically inflated) (Feldman, 2013).

Data collection

Data collection is the process of gathering and evaluating information on pertinent variables in a planned, systematic way in order to answer research questions, support hypotheses, and evaluate findings. Data collection is a part of every field of study, such as the social, business, physical, and humanities sciences. While methods vary based on the discipline, the most important thing is to ensure that the data is accurate and truthful. The goal of data collection is to obtain high-quality data that can be carefully examined and utilised to produce a reliable and convincing response to research questions. Accurate data collection is crucial to preserving research integrity, irrespective of the discipline of study or preferred method for characterising data (qualitative or quantitative). Error risk is decreased by using the right data collection tools (new, modified, or already existing) and by providing explicit instructions on how to use them (Kabir, 2016).

Among the most crucial phases of conducting research is gathering data. Even with the greatest study structure in the world, a student research project cannot be finished if he/she fail to collect the necessary data. Data collection is an extremely hard job that requires a lot of preparation, effort, patience, perseverance, and other qualities in order to be successfully completed. The first step in data collection is identifying the needed data type, and then a sample from that population is chosen. Subsequently, a specific tool must be used to gather data from the chosen sample. Data collection is an essential component of research projects as well as data analysis tools (Ohme & Araujo, 2022). A thorough data collection process yields the information required to evaluate research results, anticipate future trends, actions, and events in electronic media, and provide answers to research questions.

Common Challenges in Data Collection

Typical difficulties encountered during data collection include the following:

1. **Data Quality Issues:** Unprocessed data typically contains errors, inconsistencies, and other issues. Preventing or minimising these problems should be the ultimate goal of data collection methods. This is not always the case, though. Therefore, collected data typically requires profiling and data cleaning with the goal of identifying challenges and resolving them at all times (Ivwighren & Ogwezi, 2023).
2. **Finding Relevant Data:** For data analysts as well as other clients in an organisation, gathering data for analysis can be a challenging task because there are many different systems to navigate. Utilising data duration strategies facilitates finding and accessing data. That might entail, for instance, making searchable lists and a data catalogue (Akram & Kumar, 2017).
3. **Deciding what Data to Collect:** This is a basic problem for individuals collecting data for analytical programmes as well as for up-front unprocessed data collection. Unnecessary data collection increases process complexity, expense, and time (Akram & Kumar, 2017). However, omitting important data can reduce a data set's value and impact analytics outcomes.
4. **Low Response and Other Research Issues:** A study's validity may be called into question if those who participated are unwilling or do not respond to the survey. Developing adequate procedures for quality control to guarantee the accuracy of the data and training individuals to gather the data are additional research challenges (Ahmed, 2018).
5. **Dealing with Big Data:** Large volumes of semi-structured, structured, as well as unstructured data are frequently found in big data surroundings. This adds complexity to the initial phases of data collection and handling. Furthermore, for particular analytics applications, data analysts frequently must filter various unfiltered data kept in a data lake (Taherdoost, 2021).

Theoretical Framework

A theoretical framework that is both grounded in well-established constructs and flexible enough to incorporate newer conceptions related to digital media in educational settings is necessary for a precise assessment and evaluation of the use of digital media behaviour and related beliefs. Radical change theory served as the foundation for this investigation. A theoretical and reflective framework with a lot of potential for directing cross-disciplinary research towards the explanation of diverse issues in the digital age is radical change theory. Eliza T. Dresang suggested the theory in the 1990s with the intention of using digital age principles namely, interactivity, connectivity, and accessibility to demonstrate changes in youth handheld devices. As a fresh framework for literary scrutiny and assessment in the digital era, the theory has demonstrated its value (Dresang, 1999; Dresang, 2008). The theory guided data collection in a number of disciplines, including management and social science.

Research endeavours which employed radical change theory included components of the theory to: (a) identify information resources (like e-books) that display radical change traits as research tools for data collection; (b) identify issues and interpret outcomes of studies through the prism of radical change perspective; and (c) analyse data in accordance with the kinds of data and variables stipulated by the theory (Dresang & Kotrla, 2009). In addition to offering enjoyable aesthetic

reading experiences, radical change characteristics highlight the potential for media literacy, logical thinking abilities, visual literacy capabilities, and interpretive abilities (Tapscott, 2009). Research opportunities in digital media are abundant for scholars, learners, and professionals. Utilising various digital media instruments and their applications for data collection is the mainstream of radical change theory research.

When analysing the connection between the digital media and data collection in social and management science research, radical change theory is the position that academics take most frequently when evaluating digital media domains. It also has the strongest supporting data (Dresang & Kotrla, 2009). As can be seen from the above, the radical change theory is essential to this research because it concentrated on the specific issue at hand. As a result, the theory demonstrates its value in providing fresh guidance for data collection in social and management sciences research in Nigeria. The theory helps academicians feel more in control of their lives by giving them more tools to learn, create, and interact with others in the digital age.

Research Hypothesis

This null hypothesis was tested in order to achieve the objective of this study:

H_1: There is a significant relationship between digital media and data collection in social and management sciences research in Nigeria with particular reference to the faculty of social and management sciences, Delta State University, Abraka.

Research Methods

The study employed a cross-sectional research design. However, getting a sizable but well-defined population was an issue for the present study. In order to save time and money, a web-based survey featuring direct email communication was selected. To increase the response rate, a letter was written to university management asking them to support instructors and student involvement. A flyer was also sent to the faculty of social and management sciences to be posted on bulletin boards, and the survey was advertised on the university's closed-circuit television sets when appropriate. Every participant also received an email notice, which was sent via an e-Plugs mailing list.

Six hundred and twenty-two (620) students received emails and there were 517 respondents or 83.4% of the total. In this student survey, 436 emails or 70.3% were returned with correct addresses. 118 lecturers were invited to participate in the staff survey and 103 of them answered the questions representing 87.3% response rate. Consequently, lecturers had a higher response rate (87.3%). Moreover, 41% of the students who responded to the survey were female and 29.3% were male. Seventy-three percent of the respondents were in the 25-30 age range. This implies that, compared to male students, female students between the ages of 25 and 30 are more likely to reply to online surveys. In the lecturer survey, the responses were much more equally distributed between female (43%) and male (57%) lecturers. The study uses a five-point Likert-style rating scale in its survey to collect data from participants. Researchers asked participants to rate the extent to which they concurred or disagreed with an array of statements via a five-point Likert-style rating scale. For example, a score of 5 meant they strongly agreed, a score of 4 meant they agreed, a score of 3 meant they were unsure, a score of 2 meant they disagreed, and a score of 1 meant they

strongly disagreed. Using the Smart Personal Learning Style Criterion, a preliminary pilot study with 20 participants was carried out without replacement to determine the validity and reliability of the research.

Table 1: Validity and Reliability Results

Construct	No. of items	Composite Reliability	Cronbach's Alpha	Average Variance Extract
Digital media	8	.882	.770	.679
Data collection	5	.829	.738	.635

Source: Field Survey, 2023

The values of the two constructs for Cronbach's alpha range from 0.738 to 0.770, and for composite reliability range from 0.829 to 0.882, respectively, as shown in Table 1. It is assumed that all the constructs are reliable because the results of the composite and Crombach's alpha coefficients are greater than the cutoff of 0.70 (Hair, Hult, Ringle & Sarstedt, 2017). The reliability results are corroborated by the Average Variance Extract (AVE) discriminant validity figures, which are likewise above the threshold of 0.50 (Hair et al., 2017). Thus, both of the study's constructs showed exceptional dependability and internal uniformity. T-test, correlation and regression analysis were applied to the study's hypotheses analysis using the Statistical Package for Social Sciences (SPSS) software version 23.0.

Results

To investigate the relationship between the independent and dependent variables, bivariate analysis is used. If $p<0.05$, reject the hypothesis because there is insufficient evidence of a relationship; if $p > 0.05$, accept the hypothesis because there is strong evidence of a relationship between the variables. This decision rule covers results from bivariate tests.

Table 2: Results of the Correlation between Digital Media and Data Collection

	Variables		Digital media	Data collection
Spearman's rho	**Digital media**	Correlation Coefficient	1	.824**
		Sig. (2-tailed)		.000
		N	539	539
	Data collection	Correlation Coefficient	.824**	1
		Sig. (2-tailed)	.000	
		N	539	539

**. Correlation is significant at the 0.05 level (2-tailed)

Source: SPSS Output, 2023

Table 2 uses Spearman's correlation coefficients to show the relationship between digital media and data collection (rho = 0.824, N = 539, and P = 0.000). This result suggests that digital media and data collection have a very strong and positive relationship. This conclusion suggests that digital media can aid data collection in social and management science research in Nigeria. Correlation analysis, however, cannot establish a cause or effect in a study of this nature. A linear regression technique was employed to determine the impact of digital media on data collection in social and management science research in Nigeria.

Table 3: Summary of Regression Analysis of Digital Media on Data Collection

Source	DF	Sum of Squares	Mean Square	F- Value	Pr > F
Model	1	254.3307	5.1901	158.5061	<.0001
Error	538	13.5423	0.9674		
Corrected Total	539	267.873			

Source: SPSS Output, 2023

Decision Rule

We reject the null hypothesis if the value of F calculated is greater than the value of F tabulated (F cal>F tab), otherwise accept it. At 95% level of significance ($\alpha = 0.05$), the F tabulated is given as: F 0.05, (1, 539) = 16.7850. F calculated with a value of 158.5061 is greater than F tabulated, which is 16.7850. Thus, the null hypothesis cannot be true. The regression results of this study confirm that digital media has a positive impact on data collection in social and management sciences research in Nigeria with a 95% confidence level. The results of the tested hypothesis showed that digital media has a significant impact on data collection in social and management sciences research in Nigerian universities. As a method of data collection, it offers numerous alluring features such as increased sample size, increased sample plurality, increased flexibility and simplicity, and decreased time and financial expenditures. Moreover, a number of factors have been identified in Western literature as significant obstacles to data collection through digital media, some of which were tested at the Faculty of Social and Management Sciences, Delta State University Abraka.

Table 4: Challenges of Digital Media in Data Collection in Social and Management Sciences Research

Barriers to Data Collection via Digital Media	Mean	Standard Deviation	Remarks
Data quality issues	3.957	0.154	Supported
Finding relevant data	4.447	0.149	Supported
Dealing with big data	4.761	0.117	Supported
Low response and other research issues	4.408	0.136	Supported
Technical and methodological challenges	4.843	0.140	Supported
Perceived sentiment and copyright issues	4.678	0.192	Supported

Source: SPSS Output, 2023

The faculty of social and management sciences at Delta State University encountered various challenges when attempting to gather data via digital media. These included challenges with handling large data sets, copyright and sentiment concerns, finding relevant data, low response rates and other research issues, handling technical and methodological challenges, and issues with data quality. It can be affirm that the barriers that were identified had a significant impact on the data collection in the faculty of social and management sciences at Delta State University because the mean scores, which ranged from 3.957 to 4.843, were extremely high. However, it is important to ascertain if the male and female students have different opinions about how digital media has changed the way data is collected for research in the social and management sciences? The outcome is shown in Table 5 down below.

Table 5: The Opinion of Male and Female Students on How Digital Media Affected Data Collection in Social and Management Sciences Research

S/N	Variables	Group	N	Mean	SD	Cat.T	Crit. T
1	Data quality issues	Male	197	5.033	.532	1.307	1.925
		Female	239	5.021	.609		
2	Finding relevant data	Male	197	5.000	.630	1.490	1.973
		Female	239	4.007	.625		
3	Dealing with big data	Male	197	4.086	.670	1.571	1.978
		Female	239	4.050	.615		
4	Low response and other research issues	Male	197	4.034	.608	1.450	1.969
		Female	239	3.742	.610		
5	Technical and methodological challenges	Male	197	3.558	.626	1.533	1.960
		Female	239	3.505	.631		
6	Perceived sentiment and copyright issues	Male	197	3.397	.653	1.640	1.935
		Female	239	3.200	.603		

Source: SPSS Output, 2023

According to the results presented in Table 5 above all calculated't' (1.307, 1.490, 1.571, 1.450, 1.533 and1.640) are less than the critical't' (1.925). This means that the male and female opinion do not differ in their expression on how digital media has affected data collection in social and management sciences research.

Discussion of Findings

In the student survey, there were nearly twice as many female participants (ages 25–30) as male participants. The lecturers surveyed did not reveal this gender distinction, and the lecturers' general response rate was much higher. This implies that respondent attributes like age, gender, and areas of fascination or individual sense of obligation might be the significant determinants of digital survey attendance. The result of the study revealed that digital media aid data collection in social and management sciences research in the faculty of social and management sciences, Delta State University, Abraka. This result aligns with the opinions of Taherdoost (2021), who looked at a step-by-step guide for selecting data collection methods for research projects in academia and business. The study's findings demonstrated that digital media facilitates the gathering of data for scholarly and commercial research initiatives. This result is in line with the claim made by Herman et al. (2021) that digital media tools have been used to improve data collection in academic

research, which which include smart phones, databases, digital audio, and e-books. Herman et al. (2021) contend, however, that the notion that our society is transitioning to one that is entirely digital based and "paperless" is driven by the worry that we might be entering a digital dark age during which older media will no longer be available on contemporary devices. As a result, digital media has a wide-ranging, complex, and profound impact on society and its culture.

Examining the challenges associated with using digital media for data collection made it clear that these challenges have an impact on data collection in social and management sciences research applications. Handling large data sets, worries about perceived sentiment and copyright, locating pertinent data, low response rates and other research issues, and challenges with data quality are a few of the methodological and technical challenges. Consequently, the challenges they faced had a big impact on how data collection process is managed in the faculty of social and management sciences of Delta State University. The study also showed that opinions expressed by male and female students regarding how digital media has impacted data collection in social and management sciences research are similar. These results provide strong support for earlier research by Golbeck and Hansen (2013) and Taherdoost (2021).

Additionally, Kirschner and Karpinski (2010) contend that research on higher education has long embraced the use of technology and that it impacts many facets of daily life. Digital media platforms allow for new forms of online interaction and cooperation within the context of studies, while recordings of lectures and virtual meetings supplement or even completely replace in-person instruction. Digital media systems also make it possible to schedule courses, organise studies, and provide course materials. There is widespread availability and application of digital media in educational settings, according to research on the topic at universities both nationally and internationally. Thus, as technologies for communication advance in society, novel interactions between people and "things" become possible. There are more opportunities for interaction via social media platforms, and linked devices, particularly the Internet of things, which has led to the generation of new types of data from activities related to technological communication. By creating new research questions, new research methodologies, as well as previously unreachable research sites, these new types of data offer the communication and media researchers a singular opportunity to use novel tools to gain insight into the condition of human beings. The challenge of the future is to create digital instruments and techniques that can keep up with connected devices and link media and communication perspectives to emerging research practises. Furthermore, new and emerging start-ups that are involved in or close to new media are hitting the marketplace, and regulators are unsure of how to manage and regulate this quickly expanding industry. For those working and conducting research in the social and management sciences, opportunities and challenges arise from the ability to reinterpret previously explored research sites and make meaning of data collected in novel and exploratory ways.

According to Radical Change theory, which is consistent with the results of this study, connectivity, interactivity, and easy access to data collection can account for a large number of the changes in human behaviour and information resources in the digital age. As a result, the Radical Change theory offers fresh approaches to learning and thinking that capture the characteristics of the digital society. The availability of search engines, online forums, and networks that enable them to access online data collection in social and management science research is facilitated by

Radical Change theory, which enables academic staff to pursue in-depth knowledge on specialised topics in their area of interest.

Conclusion and Recommendations

This study finding showed that data collection in social and management sciences research in Nigeria is significantly and favourably impacted by digital media. In conclusion, digital media has a positive and significant impact on data collection in social and management sciences research in Nigeria. Digital media platforms are extremely promising channels for researchers. Regardless of the method used to collect data, once it is gathered, data security becomes a serious problem. Physical security goes far beyond an encrypted file cabinet in a safe place when it comes to digital media-based data collection. Digital media are indispensable for scholarly research in developing nations, such as Nigeria. The validity and applicability of the study results may be questioned because it was conducted at a single university. We believe that the distinct cultural traits of the study population might have had a special bearing on our findings. It would be beneficial to conduct more research on this subject involving various group of people and many Nigerian universities. The findings and conclusion of this study suggests that:

1. Since the most recent developments in digital media are making progress in the right path, Delta State university management should prioritise promoting digital media. This will promote the use of digital media for online data collection by academic staff and students.
2. Delta State university management should create and implement procedures that promote effective communication between the faculty and students. This will have a significant positive impact on the development of social and management science research in Nigeria.
3. In order to address the issues with digital media in educational research and to promote traits and responsive research performance, Delta State university administration should put in place credible and trustworthy measures.

References

Aczel, P. (2014). Reconceptualizing (new) media literacy. *Perspectives of Innovations, Economics and Business*, 14(1), 47-53.

Ahmad, S. A. (2018). *Social networking site usage as a tool for social capital and academic adjustment in the Nigerian context*. In 21st Century Academic Forum Conference Proceedings (pp. 13-31). Boston, MA.

Ajayi, O., & Ajayi, T. (2020). The places where students and scholars work, collaborate, share and plan. *Reference Services Review*, 35(4), 1-21.

Akram, W., & Kumar, R. (2017). A study on positive and negative effects of social media on society. *International Journal of Computer Sciences and Engineering*, 5(10), 347-354.

Dresang, E. T. (1999). *Radical change: Books for youth in a digital age*. New York: H.W.Wilson Company.

Dresang, E. T. (2008). Radical change theory, postmodernism, and contemporary picturebooks. In L. R. Sipe & S. Pantaleo (Eds.). *Postmodern Picturebooks: Play, Parody, and SelfReferentiality* (pp. 41-54). New York: Routledge.

Dresang, E. T., & Kotrla, B. (2009). Radical change theory and synergistic reading for digital age youth. *Journal of Aesthetics Education*, 43(2), 92-107.

Feldman, R. (2013). Techniques and Applications for Sentiment Analysis. *Communications of the ACM*, 56(4), 82-89.

Golbeck, J., & Hansen, D. (2013). A method for computing political preference among Twitter followers. *Social Networks*, 36, 177-184.

Grosch, M. (2012). *Media use for learning by students in higher education: An international empirical survey*. Canada: Association for the Advancement of Computing in Education.

Hair, J. F. Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2017). *A primer on partial leas squares structural equation modeling*. London: sage.

Herman, A., Hill, N. S., & Baile, J. R. (2021). Best practices in data collection and preparation: Recommendations for reviewers, editors, and authors. *Organizational Research Methods Journals*, 24(4), 678 – 693.

Ivwighren, H. E., & Ogwezi, O. J. (2023). Correlational study of channels of digital advertising and consumers' behaviour: A study of Delta State. *Logika : Jurnal Penelitian Universitas Kuningan*, 14(2). 197 – 212.

Ivwighren, H. E., Igben, H. G. O., & Ogwezi, O. J. (2023). Influence of digital advertising on consumers buying behaviour in Delta State. *British Journal of Marketing Studies*, 11(1), 40 – 58.

Kabir, S. M. S. (2016). *Basic guidelines for research: An introductory approach for all disciplines.* Bangladesh: Book Zone Publication.

Khan, M. L. (2017). Social media engagement: What motivates user participation and consumption on YouTube? *Computers in Human Behavior*, 66(2), 236-247.

Kirschner, P. A., & Karpinski, A. C. (2010). Facebook R and academic performance. *Computers in Human Behavior*, 26(6), 1237–1245.

Mbodila, M., Ndebele, C., & Muhandji, K. (2014). The effect of social media on student's engagement and collaboration in higher education: A case study of the use of Facebook at a South African university. *Journal of Communication*, 5(2), 115-125.

Niteen, S. M. (2020). Application of ICT in research. *Interdisciplinary Multilingual Refereed Journal*, 2, 80 - 81.

Niu, L. (2019). Using Facebook for academic purposes: Current literature and directions for future research. *Journal of Educational Computing Research*, 56(8), 1384-1406.

Ohme, J., & Araujo, T. (2022). Digital data donations: A quest for best practices. *Patterns*, *3*(4), 100 - 107.

Ohme, J., Araujo, T., Boeschoten, L., Freelon, D., Ram, N., Reeves, B. B., & Robinson, T. N. (2023). Digital trace data collection for social media effects research. *Communication Methods and Measures*, 20, 1 – 18.

Otto, L. P., Thomas, F., Glogger, I., & De Vreese, C. H. (2022). Linking media content and survey data in a dynamic and digital media environment – mobile longitudinal linkage analysis. *Digital Journalism*, *10*(1), 200–215.

Stadel, M., & Stulp, G. (2022). Balancing bias and burden in personal network studies. *Social Networks*, *70*, 16–24.

Stier, S., Breuer, J., Siegers, P., & Thorson, K. (2020). Integrating survey data and digital trace data: Key issues in developing an emerging field. *Social Science Computer Review*, *38*(5), 503–516.

Taherdoost, H. (2021). Data collection methods and tools for research: A step-by-step guide to choose data collection technique for academic and business research projects. *International Journal of Academic Research in Management*, 10(1), 10 -38.

Tapscott, D. (2009). *Grown up digital: How the net generation is changing your world*. New York: McGraw Hill.

Valkenburg, P. M. (2022). Theoretical foundations of social media uses and effects. In J. Nesi, E. H. Telzer, & M. J. Prinstein (Eds.), *Handbook of adolescent digital media use and mental health* (pp. 39–60). Cambridge: Cambridge University Press.

Yeykelis, L., Cummings, J. J., & Reeves, B. (2014). Multitasking on a single device: arousal and the frequency, anticipation, and prediction of switching between media content on a computer: Multitasking and Arousal. *The Journal of Communication*, *64*(1), 167–192.