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# USE OF RESEARCH GATE AS A VERITABLE TOOL FOR EDUCATIONAL DEVELOPMENT AMONG UNDERGRADUATE STUDENTS

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## **ABSTRACT**

Social media platforms are increasingly used for communication, entertainment, and information sharing. For researchers to network and discuss their research discoveries, there is a social media platform called ResearchGate. Little attention has been paid to ResearchGate as a tool for educational development among undergraduate students in Nigeria. Therefore, this study intends to narrow the existing knowledge gap by offering valuable insights into how ResearchGate can enhance undergraduate students' educational development in Nigeria. Technological determinism theory formed the basis for the study as a convenient sampling technique was used to collect data. A total of 275 copies of the questionnaire were administered randomly to selected participants, who were Redeemers University undergraduates and a sum of 250 usable questionnaires were received. Findings showed that ResearchGate is getting known by students and contributing to the intellectual community. Findings also showed that ResearchGate is a great tool for learning and helps undergraduates develop their skills and knowledge in their field of study. Hence, this study concluded that social media can be a valuable tool for enhancing learning and collaboration among students, not just for fun and pleasure. It is recommended that Universities and educational institutions should encourage students to use ResearchGate to share research and collaborate with other students and researchers.

**Keywords:** Social Media, Research Gate, Development, Undergraduates **Copyright© 2023 by authors;** licensee KIJHUS. This article is an open access article and can befreely accessed and distributed.

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## **INTRODUCTION**

Social media has become an essential aspect of the everyday routines of individuals particularly undergraduate students, in Nigeria. Social media platforms are increasingly used for communication, entertainment, and information exchange. The potential of social media platforms as a tool for undergraduate educational growth in Nigeria has yet to be adequately investigated.

Researchers can interact, work together, and share their research discoveries on ResearchGate, a social media platform. ResearchGate has grown in popularity among Nigerian scholars in recent years, particularly among (undergraduate) researchers. This popularity offers a chance to investigate the potential of social media websites like ResearchGate as a tool for undergraduate education improvement in Nigeria.

When evaluating the use of ResearchGate among undergraduates, it is noted that the limited internet connectivity in Nigeria is a significant barrier to the use of ResearchGate. The number of students who can use ResearchGate is constrained because a significant portion of Nigeria's population still needs internet access, despite rising internet usage.

According to Borrego (2017), for many undergraduates to use ResearchGate to its maximum potential, they need to get more familiar with its features and functionalities. On the other hand, according to Onyancha (2015), undergraduates must know ResearchGate's presence and possible advantages. This ignorance constrains the number of pupils who can use the platform.

## **Statement of the Problem**

The gap that the study seeks to fill is that, while earlier studies, such as Bennett (2014) have examined the effects of social media platforms on learning and academic performance, ResearchGate as a tool for educational advancement among Nigerian undergraduate students has received little attention. As a result, this study will close this gap by offering information on how ResearchGate might be used to enhance educational development among Nigerian undergraduate students. This study also seeks to find out the level of awareness of ResearchGate as a tool for educational development among undergraduates. The study will also examine the usage level of ResearchGate as a tool for educational development among undergraduates. And lastly, the study will investigate the role of ResearchGate, in promoting educational development among undergraduates.

## **Objectives of the Study**

The objectives of the study are to find out the level of awareness of ResearchGate as a tool for educational development among undergraduates, know the level of usage of ResearchGate as a

tool for educational development among undergraduates, and investigate the role of ResearchGate, in promoting educational development among undergraduates. The objectives were turned to research questions that form the questionnaire items for the respondents.

## THEORETICAL FRAMEWORK

The Marshall McLuhan-proposed technological determinism theory will serve as the foundation for this investigation. The theory explains how media technology influences how individuals think, behave, and operate during transitions from one technological era to another. According to the hypothesis, people learn, think and feel the way they do because of the media messages they take via the available technology. This thinking made him submit that "the medium is the message".

According to Griffin (2010), a medium has a greater impact on individuals than the messages it conveys. He also predicted that the electronic age would create a revolution connecting people globally, overcoming space and time barriers through technology such as television, computers, and jets. This would result in a single global village where people are brought together instantaneously." (Griffin, 2010).

Social media is a natural and inevitable result of technological progress, and it is a positive development that has brought people closer together and increased access to information and knowledge. However, it is also important to acknowledge that social media has its downsides, such as the potential for misinformation and the erosion of privacy.

MacLuhan piped into the future of media technology and declared that "we shape our tools and they in turn shape us". The reason for this is that the emergence of new media technologies has significantly transformed individuals' cognitive, emotional, and behavioural patterns. For example, the book (print) is said to be an extension of the eye. According to Marshall McLuhan, the wheel is a technological extension of the foot, while clothing is an extension of the skin. Marshall McLuhan believed that electronic technologies, such as computers and the internet, are extensions of the central nervous system. The theory holds that through these extensions, media technology increases our capacity for communication and productivity and serves as a filter to categorise and make sense of the social world. According to the notion, technology is the main force behind social and cultural change.

This concept underlines how technology affects and modifies society's structure and interpersonal relationships. The invention and use of social media have greatly impacted how people connect and communicate when this theory is applied to social media use. Through social media, people may now communicate in ways that were before impossible and connect over great distances. People now have a powerful platform to voice their opinions and participate in public conversation in a previously unimaginable way, thanks to the rise of social media.

According to the viewpoint of technological determinism, the creation and usage of social media in education is a normal and unavoidable outcome of technology growth.

The technological determinism theory can be used to support the use of social media in education since it is a natural and inevitable result of technological advancement, which has changed how students learn, connect with their peers and teachers, and access educational resources. However, it is crucial to be aware of the potential drawbacks of using social media in education, such as distraction and abuse risk, and to work towards reducing these dangers.

### LITERATURE REVIEW

## Social Media as a Tool for Educational Development

The sharing of academic and non-academic information among students has been made easier by social media. The use of social media as a tool for advancing education has the potential to be advantageous for students, teachers, and educational institutions in several ways. Hocoy (2013) states that social media platforms can encourage teacher-student collaboration and communication. Students can communicate via social media with their peers and teachers to ask questions, exchange ideas, and give feedback on their work. Additionally, teachers can use social media to interact with students outside the classroom by offering extra materials and assistance to complement conventional lectures (Hocoy, 2013).

Social media can also be used to advance communication and digital literacy. Students familiar with social media platforms will be better able to navigate the digital environment and interact successfully in many circumstances. Social media is an increasingly pervasive component of modern life. Social media can provide access to educational opportunities and materials that might not be available through traditional channels. For instance, many educational institutions provide webinars and online courses that may be accessed through social media. Social media may also connect students with mentors, business leaders, and otherhelpful resources to help them achieve their academic and career goals.

Students can engage in active learning activities using social media platforms to practically apply their knowledge and skills in everyday circumstances. Students can use social media, for instance, to conduct research, participate in conversations and debates, and work together on projects. Social media can also help students learn about global issues and challenges and engage in conversations and actions that can further enhance skills and knowledge in the study area. However, Ogehenetega, Oyenike & Ugeh (2014) stated that social media also has challenges and potential educational risks, including privacy, cyberbullying, and misinformation. As such, it is essential that instructors and students are educated on best practices for using social media responsibly and safely.

# **Understanding the Concept of social media**

Ali et al. (2016), define social media as web-based platforms and tools that facilitate real-time creation, sharing, and interaction of content among users. Due to social media's widespread use, people now engage, communicate, and participate with one another in whole new ways that have become essential to their daily lives. Many different social media sites exist, including TikTok, Facebook, YouTube, Twitter, Instagram, LinkedIn, Research Gate and many more. Each platform has distinct qualities and caters to different audiences.

Boateng & Amankwaa (2016) opine that the impact of social media on the educational development of undergraduates in Nigeria is considerable. Again, Boateng & Amankwaa (2016) say students increasingly use social media to connect with their peers, share knowledge, and engage with their lecturers. Some of the ways in which social media influences undergraduate educational development in Nigeria according to Boateng & Amankwaa (2016), are information sharing and networking.

Ndaku (2013) additionally believed that social media has simplified the dissemination of academic and non-academic information among students. This enables students to collaborate and learn from each other. Ndaku (2013) maintain that social media platforms allow students to network with professionals in their respective fields, which could lead to career opportunities. Furthermore, social media are platforms for students to access online courses, lectures, and other educational resources.

Ogehenetega, Oyenike & Ugeh (2014) says that social media provides a platform for students to conduct research and share their findings. Scholars share research papers and articles on social networking sites like ResearchGate and LinkedIn. Despite the numerous benefits of social media, Ogehenetega, Oyenike & Ugeh (2014) reveal that it also negatively affects undergraduate educational development in Nigeria. For instance, Ogehenetega, Oyenike & Ugeh (2014) says excessive use of social media can lead to addiction, distraction, and reducedacademic performance. Students may also encounter cyberbullying, misinformation, and other negative influences on social media.

## What makes ResearchGate a Social Media Platform?

ResearchGate is a social media platform that caters exclusively to scientists and researchers, allowing them to share their research, collaborate with peers, and establish connections with other professionals in their discipline. Like social media sites like Twitter and Facebook, it enables users to create profiles, follow other scholars, and participate in debates, making it a social media platform (Borrego, 2017).

Researchers can make profiles that highlight their experience, research interests, and publications, according to Borrego (2017). Additionally, researchers might include connections

to their personal websites and social media profiles and information about their training, professional experience, and education. According to Onyancha (2015), ResearchGate enables scholars to collaborate and converse with one another and interact with others in their field. Users can look for other scholars based on keywords, research interests, and affiliations. Publications can be uploaded to ResearchGate by researchers, making them readily available to others working in related fields. Users can also browse and search for publications and create reading lists to keep track of interesting research.

According to Lee et al. (2019), ResearchGate provides a Q&A section where users can post questions about research, methodology, and other subjects relevant to their field. This makes it possible for scholars to interact, exchange knowledge, and participate in conversations and debates. The number of views, downloads, and citations are among the metrics ResearchGate offers for publications. This allows researchers to track the impact of their work and see how it is used by others in their field (Lee et al., 2019).

### **METHODOLOGY**

For this study, empirical analysis, which includes primary data collected was retrieved through the questionnaire. The questionnaire was designed into two parts; part one consisted of questions regarding the respondents' demographic data, and part two contained a Likert scale ranging from (1) strongly disagree to (5) strongly agree questions regarding social media as a tool for educational development among undergraduates. The study employed a random sampling method to choose five faculties and 50 undergraduates were selected using theconvenience sampling techniques to collect data from 275 undergraduates of Redeemer's University. A total of 275 copies of the questionnaire were administered randomly to selected participants, who were Redeemers University undergraduates, and 250 copies of the usable questionnaire were received.

# DATA ANALYSIS AND PRESENTATION

**Table 1: Demographic Characteristics of the Respondents** 

		Frequency	Percentage
Sex	Male	116	46.4%
	Female	134	53.6%
Age	15 – 20	205	82.0%
	21 – 25	45	18.0%
Level	100	53	21.2%
	200	39	15.6%
	300	41	16.4%
	400	117	46.8%

Table 1 shows that 116 (46.4%) of the respondents were male, while 134 (53.6%) were female. The table also shows the level of study of the respondents and it was obtained that 53 (21.2%) of the respondents are in the 100 level, while 39 (15.6%) of the respondents are in 200 level, 41 (16.4%) of the respondents are in 300 level, majority of the respondents117 (46.8%) are in 400 level.

Table 2: To find out the level of awareness of ResearchGate as a tool for educational development among undergraduates

Level of Awareness	Yes	No
Have you ever heard of ResearchGate before	153	97
taking this survey?	(61.2%)	(38.8%)
Have you used ResearchGate before?	133 (53.2%)	117 (46.8%)
Do you know about ResearchGate as a tool for academic research?	149 (59.6%)	101 (40.4)
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From Table 2, the result of the analysis reveals that the majority 153 (61.2%) of the respondents have heard about ResearchGate before the survey, the majority 133 (53.2%) of therespondents have used ResearchGate before, the majority 149 (59.6%) of the respondents know about ResearchGate as a tool for academic research. This infers that the majority of the respondents are aware of ResearchGate as a tool for Educational Development.

Table 3: To know the level of usage of ResearchGate as a tool for educational development among undergraduates

Items	Never	Rarely	Sometimes	Very Often
How often do you use ResearchGate?	34	51	89	76
	(13.6%)	(20.4%)	(35.6%)	(30.4%)
How often do you use ResearchGate for	27	42	90	91
academic purpose?	(10.8%)	(16.8)	(36.0%)	(36.4%)
How often do you use ResearchGate to	53	25	61	111
connect with other researchers?	(21.2%)	(10.0)	(24.4)	(44.4)
How often do you participate in any	19	47	68	116
discussions on ResearchGate?	(7.6%)	(18.8%)	(27.2%)	(46.4%)

From Table 3, the result of the analysis reveals that the majority 89 (35.6%) of the respondents do sometimes use ResearchGate, the majority 91 (36.4%) of the respondents very often use ResearchGate for academic purposes, the majority 111 (44.4) of the respondents very often use ResearchGate to connect with other researchers, majority 116 (46.4%) of the respondents very often do you in any discussions on ResearchGate This infers that the level of usage of ResearchGate as a tool for educational development among undergraduate is high.

Table 4: Investigate the role of ResearchGate, in promoting educational development among undergraduates

Items	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
searchGate provides a platform for	9	11	20	83	127
students to access a wide range of	(3.6%)	(4.4%)	(8.0%)	(33.2%)	(50.8%)
research articles.					
	6	10	43	76	115
ResearchGate provides an	(2.4%)	(4.0%)	(17.2%)	(30.4%)	(46.0%)
opportunity for students to connect with experts in their field of study	20	3	28	92	107
	(8.0%)	(1.2%)	(11.2%)	(36.8%)	(42.8%)
ResearchGate is a great resource for learning about research	7	10	42	110	81
methodologies	(2.8%)	(4.0%)	(16.8%)	(44.0%)	(32.4%)
ResearchGate helps students to find research opportunities	10 (4.0%)	10 (4.0%)	30 (12.0%)	113 (45.2%)	87 (34.8%)
ResearchGate can help students to	4	5	15	92	134
develop their knowledge and skills in	(1.6%)	(2.0%)	(6.0%)	(36.8%)	(53.6%)
their field of study	, ,	,	, ,	, ,	` '
It is very easy to navigate on ResearchGate					

From Table 4, the result of the analysis reveals that the majority 127 (50.8%) of the respondents strongly agreed that ResearchGate provides a platform for students to access a wide range of research articles., majority 115 (46.0%) of the respondents strongly agreed that ResearchGate provides an opportunity for students to connect with experts in their field of study, majority 107 (42.8%) of the respondents strongly agreed that ResearchGate is a great resource for learning about research methodologies, majority 110 (44.0%) of the respondents agreed that ResearchGate helps students to find research opportunities, majority 113 (45.2%) of the respondents agreed that ResearchGate can help students to develop their knowledgeand skills in their field of study, majority 134 (53.6%) of the respondents strongly agreed that It is very easy to navigate on ResearchGate. This infers that ResearchGate as a social media platform is a good tool for education development among undergraduates.

### **DISCUSSION**

The first objective was to find out the level of awareness of ResearchGate as a tool for educational development among undergraduates. Findings revealed that the respondents are aware of ResearchGate as one of the tools for educational development. Lending credence to these findings, Boateng & Amankwaa (2016) assert that students increasingly use social media to connect with their peers, share knowledge, and engage with their lecturers. This means that social media platforms like ResearchGate are getting known by students and contributing to the intellectual community, not all social media platforms are for fun and to gratify pleasure.

Furthermore, the second objective examined the level of usage of ResearchGate as a tool for educational development among undergraduates. The result showed that most respondents sometimes use ResearchGate not just for usage alone but very often use ResearchGate for academic purposes and to communicate with other researchers. The results of this study support Onyancha's (2015) assertion that ResearchGate enables scholars to interact with those in their field, follow one another's work, and collaborate.

The final goal examined ResearchGate's contribution to fostering undergraduate educational development. The results demonstrate that ResearchGate is an excellent learning tool that aids undergraduates in advancing their expertise and knowledge in their subject of study. Theresults show that ResearchGate offers a platform for students to access different research publications for academic advancement.

## CONCLUSION AND RECOMMENDATIONS

In conclusion, the study of ResearchGate as a medium for educational advancement among undergraduate students revealed that social media might be an excellent tool for boosting student collaboration and learning, not merely for entertainment and fun. ResearchGate can develop critical thinking, improve academic writing skills, and foster community among students by providing a forum for sharing research and working with other students and researchers. In light of the findings, the following recommendations are made: Universities and other educational institutions should encourage students to publish their research and collaborate with other researchers on ResearchGate. Furthermore, seminars and training sessions must be held to teach students to use ResearchGate and other social media sites for instructional reasons. Universities should encourage students to participate in online intellectual organizations and foster growth.

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