

INFLUENCE OF TWITTER ON COGNITIVE DEVELOPMENT OF NIGERIAN YOUTHS

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ABSTRACT: *This study was conducted to examine the influence of Twitter on cognitive development of Nigerian youths. Conceptual and empirical literatures were reviewed and the study was anchored on Social cognitive theory. The study adopted online survey research method (Google form) and used online Nigerian youths as respondents. A sample for the study was drawn using Morgan formula to draw a representative sample size of 384 from a population of 64,000,000 youths being the population of Nigerian youth. Availability sampling technique was adopted to administer questionnaire to respondents. Two research questions and one hypothesis were formulated to guide the proper investigation of the study. The quantitative data gathered from questionnaire were analyzed with the statistical package for social sciences (SPSS) using tables and charts to further explained the result of the findings. Findings revealed that tweeters found Twitter very engaging and useful which resulted into its everyday usage; increasing their knowledge which aided their cognitive development. The researchers concluded that there is significant positive relationship between influence of Twitter and cognitive development of youths and therefore recommended that institutions of higher learning in Nigeria should use Twitter as educational and learning tool.*

KEYWORDS: Influence, Twitter, Cognitive Development, Youths

INTRODUCTION

Background of the Study

One of the breakthroughs in information and communication technology in the 21st century is the discovery and emergence of the new media which have facilitated the creation of the different platforms for social interaction (Adaja & Ayodele, 2013, Kaplan and Helen, 2010). These new media include: Twitter, Blogs, Facebook, Instagram, Skype, Tumblr, Youtube, Podcast, 2go, Eskimi, Flickr (Abubakar, 2011). These social media have brought into reality a global village which Marshall McLuhan envisaged some years ago. However, there are many issues surrounding social networking sites particularly with the youths who constitute the majority users of the new interactive platforms. Notably among the social media platforms is Twitter created 2006 by Jack Dorsey, Biz Stone, Noah Glass and Evan Williams. This platform allows users to post status updates known as tweets restricted to 140 characters in length, digital content which include images, links, videos, or other Internet based media (Oyza & Edwin, 2015). Twitter today has become a global powerhouse where communication and interaction takes place in real time with over 320 million active users as at March 2016 (Justin Kerby; April 4, 2016), making it one of the most popular and observed platform in the world.

The inception of Twitter in Nigeria according to Olaito (2014) authoritatively started in 2008. About 85% of Twitter users at the time before Twitter was well known and accepted abandoned their accounts but now it seems to be taking the lead as a major source of information sharing, breaking news and activism, an increase which is driven by the growth in mobile web access. Olaito (2014) further states that people are coming on Twitter than any other platform in Nigeria and the percentage of youths here is on increase as they are constantly sharing issues, ideas and events as it bothers them. Given such pervasive and extensive use of twitter by youths (Tapscott, 2002), believed that using this platform can help youths think more critically (Jones 2011 as cited in Hsiao, Chen & Hu, 2013), as growing in an interactive, socially interconnected technology environment, compared to such passive activities like watching television or listening to a lecture can cause a huge change in the demographics, interests, needs, expectations and work habits of today's young population (Thomas, 2010). Through this kind of participation, it offers youths opportunities that extend into their view of self and community (O'Keeffe & Kathleen, 2011). Thomas (2010) believes that it is in social interaction that information can become knowledge. Since knowledge is expanding exponentially in the information age, no one individual is an expert; rather individuals are part of a social network with others.

Onyeka, Sajoh & Bulus (2013) assert that environment seems to have an impact on a person's intellectual development; as a result it is likely that the rapid societal and technological changes can have a huge impact on how youths think and teach. Twitter activity presents a novel way to research and understand attitudes, trends and media consumption. This leads to the question that motivated this study, Twitter influence on Nigerian youth's cognitive development (Thomas, 2010).

Statement of the problem

The influence of mass media on human behavior has been viewed by researchers as pervasive. It has been alleged that mass media affect the way we think, react to issues and to a greater extent construct a new world for us, though incorrect but we believe it to be so. Many scholars have also alleged that the mass media particularly the social media have contributed to our knowledge and understanding of issues as well as impacting negatively on the users particularly the youths. Issues of fraud, identity thefts, pornography and countless other negative influences associated with social networking in general have been a cause of concern for scholars and authorities worldwide. We do not know if Twitter is leading in the positive or negative influence factor among other social networking sites. If it does, which angle? Positive or negative? If positive, does it impact on their cognitive development? However, cognitive development of youths through the use of Twitter has not been pinpointed in all of the studies we have found. It is uncertain whether Twitter has a particular effect on the cognitive development of youth or not. It is in this light that this research work is designed to find out the cognitive influence of social media (Twitter) on Nigerian Youths.

Objectives of the study

The broad objective of this study is to determine the influence of Twitter on the cognitive development of Nigerian youths. Specifically, the study aimed to:

1. investigate the level of exposure of Nigerian youths to Twitter

2. determine the level of influence Twitter has on the cognitive development of Nigerian youths

Research questions

The following research questions guided the study:

1. What is the level of exposure of Nigerian youths to Twitter?
2. What is the level of influence of Twitter on the cognitive development of Nigerian youths?

Hypothesis

H1: There is a significant relationship between the influence of Twitter and cognitive development of Nigerian youths

HO: There is no significant relationship between the influence of twitter and cognitive development of Nigerian youths.

Scope of study

This study centered on Influence of Twitter on Cognitive Development of Youths in Nigeria. The study is restricted to online Nigerian youth's respondents who reside in the country.

REVIEW OF RELATED LITERATURE

Twitter, a Cognitive Platform for Youth Development

Scholars assert that social media represent new skills and ways of participating in the world. Several research findings have found that twitter allow youths to use new technologies and contribute to online communities; without which they will not be able to develop the necessary skills and technical literacy that will be vital for them (McCool, 2011).

It has been observed that the role of technology as a cognitive tool is not meant to do the thinking for users, but only to facilitate the thinking and learning processes. It has also been perceived that this platform will not directly teach content or thinking skills, but rather such an individual will internalize the way such platform is presented as a cognitive tool for their own use. Thomas (2010,p 9) argued that "the appropriate role for a computer system is not that of a teacher/expert, but rather, that of a mind-extension "cognitive tool".

Features on twitter supports and allow the learner to think more productively and engage in important processes of articulation and reflection, which are the foundations of higher order of thinking, skills and knowledge construction (Thomas, 2010). This sort of casual conversation as presented on twitter is an example of the construction of social knowledge, described by Lev Vygotsky's *Sociocultural Theory of Learning*. This theory posits that "social interaction plays a fundamental role in the process of cognitive development" by using the cultural tools available which exist within a person's environment (McCool, 2011).

Empirical review

Kathryn L. Mills (2016) conducted a research on *Possible Effects of Internet Use on Cognitive Development in Adolescence*. This work integrated the latest empirical evidence on Internet use with relevant experimental studies to discuss how online behaviors, and the structure of the online environment, might affect the cognitive development of adolescents. Popular concerns were discussed in light of the reviewed evidence, and remaining gaps in knowledge are highlighted. The findings of this work suggested that cognitive changes are likely taking place, but that these changes are not necessarily impeding adolescents' or emerging adults' ability to successfully navigate our highly-connected world.

Genevieve Johnson (2006) carried out a research work on *Internet Use and Cognitive Development: a theoretical framework*. The study found out that the number of children and adolescents accessing the Internet as well as the amount of time spent online are steadily increasing. It presented a theoretical framework for understanding the effects of Internet use on cognitive development. From a cognitive developmental perspective, the Internet is a cultural tool that influences cognitive processes and an environmental stimulus that contributes to the formation of specific cognitive architecture.

Theoretical Framework

Social Cognitive Theory

This communication theory was developed by Albert Bandura in the 1960s. Social cognitive theory has its roots in psychology and explains that humans learn behaviors by others performing those behaviors and imitating them. It provides a conceptual framework within which to analyze the determinants and psychosocial mechanisms through which symbolic communication influences human thoughts and action. This theory particular relates with the influence of twitter on cognitive development because according to Kathryn (2016) everyone is a product of their environment. Circumstantial life events, influences, and surroundings can further change our behavior.

Cognitive study posits that communications systems operate through two pathways. In the direct pathway, they promote changes by informing, enabling, motivating, and guiding participants. In the socially mediated pathway, media influence link participants to social networks and community settings that provide natural incentives and continued personalized guidance, for desired change.

METHODOLOGY

The study adopted an online survey method using Google Form; a software which allows online administration of instrument, data analysis, sample selection, and data representation of tools from the Uniform Resource Locator (URL) through email and other social media platforms. This software makes it easier to get responses from online respondents and also allows the viewing of analysis in real time.

The population of the study stood at 64,000, 000 from 2012 National Baseline Youth Survey in Nigeria, taken from age 15 – 35. From this population, a sample size was of 384 respondents was drawn using Krejcie and Morgan's formula as shown on their table. A

probability sampling technique was used to administer online questionnaire to respondents, this online software allows respondents to email their responses within split seconds to researchers. The results were analyzed with statistical package for social sciences (SPSS). This study adopted both chi-square and Pearson Product Correlation Coefficient to test the hypothesis at 5% level of significance.

DATA PRESENTATION AND ANALYSIS

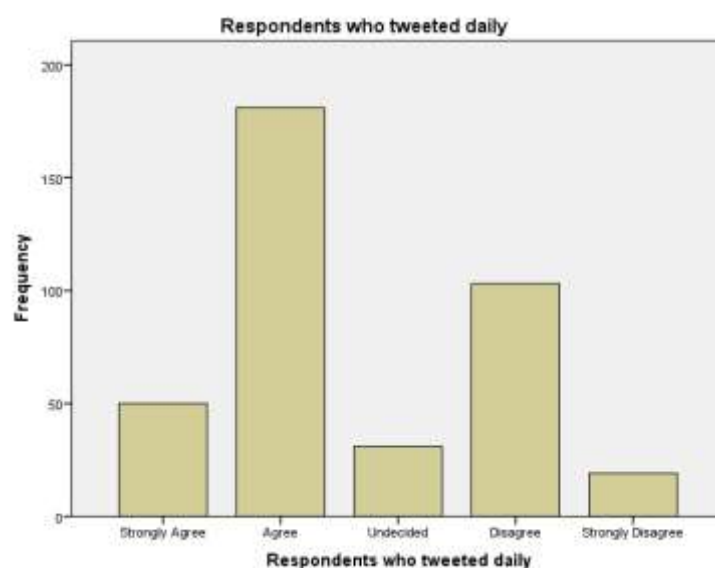
Research Question one

What is the level of exposure of youths to twitter?

This research question was employed to find out if youths did not just have a Twitter account but were exposed to it on a daily basis. This way the researchers were able to identify how active or how passive users are on this platform.

Table 1: Respondents who tweeted daily

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	50	13.0	13.0	13.0
Agree	181	47.1	47.1	60.2
Undecided	31	8.1	8.1	68.2
Disagree	103	26.8	26.8	95.1
Strongly Disagree	19	4.9	4.9	100.0
Total	384	100.0	100.0	



From the table and figure above, which present respondents who tweeted daily, the researchers were able to know the level of exposure of youths to twitter by the frequency at

which they tweeted. From the data obtained 50 (13.0%) of the respondents strongly agreed to have tweeted daily, 181 (47.1%) respondents agreed that they tweeted daily, 31 respondents (8.1%) said they were undecided as to whether they tweeted daily or not, while 103 respondents (26.8%) of them declined as to tweeting daily and 19 respondents (4.9%) of the remaining respondents strongly disagreed to it. This shows that a majority of the respondents (181) were exposed to Twitter daily. From this result, we can conclude that there are more active tweeters on Twitter than passive users and from the level of exposure it is safe to imply that Twitter has a strong cognitive influence on its users.

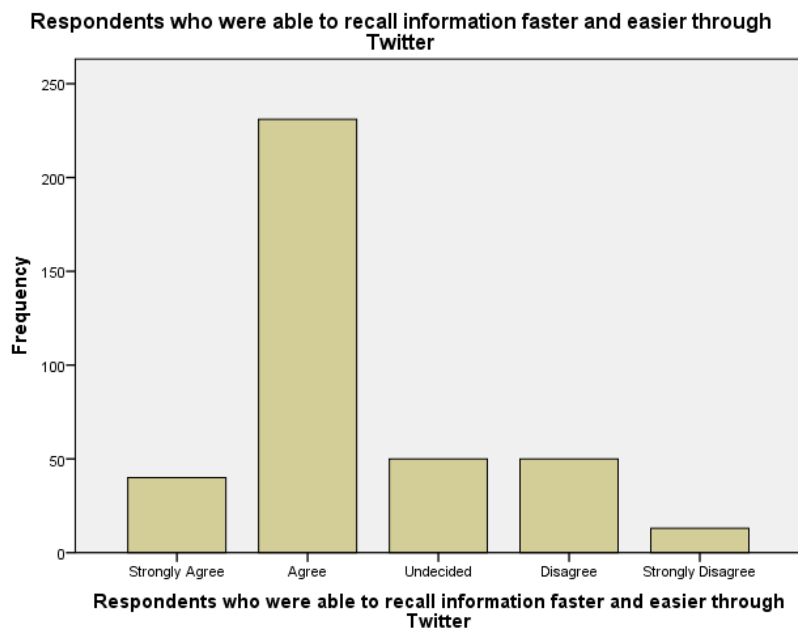
Research Question Two

What is the level of influence of Twitter on the cognitive development of Nigerian youths?

Item 2, 3 in the questionnaire were used to answer this research question. The data is presented in the tables and figures below respectively.

Table 2: Respondents who were able to recall information faster and easier through Twitter

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	40	10.4	10.4	10.4
Agree	231	60.2	60.2	70.6
Undecided	50	13.0	13.0	83.6
Disagree	50	13.0	13.0	96.6
Strongly Disagree	13	3.4	3.4	100.0
Total	384	100.0	100.0	

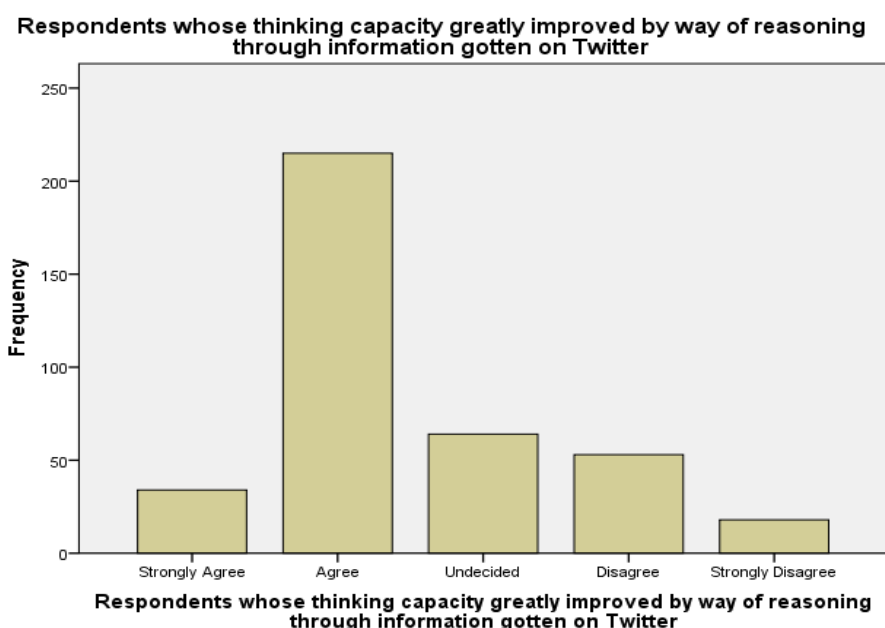


The data shows that 40 (10.4%) of the respondents strongly agreed that they were able to recall information faster and easier through Twitter. 231 (60.2%) of them agreed while 50 (13.0%) of them were indifferent. 50 (13.0%) respondents disagreed followed by 13 (3.4%) respondents who strongly disagreed that they were able to recall information faster and easier through Twitter. This indicates that more than half of the respondents were able to recall information faster and easier through Twitter.

Table 3: Respondents whose thinking capacity greatly improved by way of reasoning through information gotten on Twitter

	Frequency	Percent	Valid Percent	Cumulative Percent
Strongly Agree	34	8.9	8.9	8.9
Agree	215	56.0	56.0	64.8
Undecided	64	16.7	16.7	81.5
Disagree	53	13.8	13.8	95.3
Strongly Disagree	18	4.7	4.7	100.0
Total	384	100.0	100.0	

Source: Authors survey, 2017



This shows that 34 respondents representing (8.9%) said their thinking capacity greatly improved by way of reasoning through information gotten on Twitter. 215 (56.0%) respondents agreed that their thinking capacity greatly improved by way of reasoning through information gotten on Twitter, 64 (16.7 %) were indifferent, 53 (13.8%) stated that their thinking capacity did not greatly improve by way of reasoning through Twitter, followed by 18 (4.7%) respondents who also strongly disagreed. This implies that Twitter highly improved the thinking capacity of respondents.

Test of Hypothesis

The hypothesis framed to guide this study was tested using chi square as shown in this section.

H1: There is a significant relationship between the influence of Twitter and cognitive development of Nigerian youths

H0: There is no significant relationship between the influence of twitter and cognitive development of Nigerian youths.

Table 4: Contingency Table for Hypothesis one

			Respondents whose thinking capacity greatly improved by way of reasoning through information on Twitter					Total
			Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	
Respondents who found Twitter very engaging and useful	Strongly Agree	Count	34	38	0	0	0	72
		Expected Count	6.4	40.3	12.0	9.9	3.4	72.0
	Agree	Count	0	177	62	0	0	239
		Expected Count	21.2	133.8	39.8	33.0	11.2	239.0
	Undecided	Count	0	0	2	26	0	28
		Expected Count	2.5	15.7	4.7	3.9	1.3	28.0
	Disagree	Count	0	0	0	27	9	36
		Expected Count	3.2	20.2	6.0	5.0	1.7	36.0
	Strongly Disagree	Count	0	0	0	0	9	9
		Expected Count	.8	5.0	1.5	1.2	.4	9.0
	Total	Count	34	215	64	53	18	384
		Expected Count	34.0	215.0	64.0	53.0	18.0	384.0

Table 5: Chi-square Tests for Hypothesis One

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	726.273 ^a	16	.000
Likelihood Ratio	535.569	16	.000
Linear-by-Linear Association	294.869	1	.000
N of Valid Cases	384		

a. 12 cells (48.0%) have expected count less than 5. The minimum expected count is .42.

The above chi-square estimate shows that the probability value is 0.000. This is less than the level of significance in the study which is 5% (0.005). Therefore, we reject the null hypothesis and accept the alternative hypothesis that there is a significant positive relationship between influence of Twitter and cognitive development of Nigerian youths.

SUMMARY DISCUSSIONS OF FINDINGS

From the data generated and analyzed based on the two research questions and one hypothesis, the findings in relation to question one, revealed that 181 respondents (47.1%) from the 384 respondents agreed that they tweeted daily. From this result, Nigerian youth's exposure on twitter is very high hence twitter has a strong cognitive influence on the users. Results from the two items that were analyzed for research question two also showed that twitter greatly improved the thinking and the recall capability of Nigerian youths.

CONCLUSION

From the empirical and theoretical data of the study it is clear that Twitter had an influence on the cognitive development of youths. It improved their thinking capacity on knowledge through information gotten on twitter and other issues found relevant to them based on their various interests on the subject. It is also clear from the hypothesis that there is a significant positive relationship between influence of Twitter and cognitive development of Nigerian youths.

RECOMMENDATIONS

Based on the findings of this study, the researchers recommend the following:

1. Media users should adopt Twitter as a platform for agenda setting.
2. Institutions of higher learning in Nigeria should use Twitter as educational and learning tool.
3. Church and other religious institutions can also adopt Twitter as a platform for disseminating inspirational and spiritual messages needed for spiritual growth and responsiveness among youths and other Twitter users.
4. Social influencers and mobilizers should increase awareness and involvement in political participation on Twitter, which would accelerate political development contributing to national development.

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