

Enhancing Access and Quality of Open Instructional Videos in Africa: Visibility of NOUN Repository on Social Media

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Abstract

National Open University of Nigeria's (NOUN's) open courseware has been adjudged a source of dependable open educational resources for students and instructors within and outside the ambit of open and distance learning institutions across Africa and beyond. The development of instructional videos, produced by professionals in every subject area in NOUN has significantly added value to open learning resources. Opening the instructional videos to unrestricted access particularly through social media has been a subject of debate considering the public request and the university's need to protect the integrity of the videos. Although social media, especially YouTube, house both open and restricted access instructional videos, doubtful sources and questionable contents have made its adoption for open universal education a prolonged challenge. This work surveyed public opinion within and outside Nigeria on how social media could enhance the openness of NOUN's instructional videos and boost the users' trust in the contents on social media. Hinging the discussion on Uses and Gratification theoretical analysis, transporting NOUN's instructional videos to social media was adjudged a welcome development. Substantial empirical deductions from public perceptions of the idea affirmed that the practice would lubricate the public's interest and confidence in open and distance education.

Keywords: Instructional video, Open resources, Social media, Repository, Courseware

Introduction

Enhanced interactivity of open and distance model of education has placed more pressure on the demand for such, especially among the educationally disadvantaged and the less privileged in Africa (Adelokun, 2018). This achievement speeds up the central target of Massive Open Online Course (MOOC) and various governmental policies on mass education of African population. Various developments in information and communication technologies (ICTs) are also easing both the access, as well as the mode of transferring knowledge without distance barriers. The development in ICTs has also caught up with the interactivity challenge, which was earlier considered one of the main obstacles in open and distance education, compared to face-to-face classroom affairs. The influence of technological determinism proposition has proved a significant trend in the way every development in information and communication technology benefits open and distance education. Social media are now rendering significant functions in education and knowledge sharing and have been widely adopted as means to facilitate access to unrestricted educational contents (Essel, Vlachopoulos, Adom, & Tachie-Menson, 2021; Olivier, 2019; Ssentamu et al., 2020).

Many institutions in Africa were forced by the challenge of Covid-19 to engage in distance education in the year 2020 and 2021 so as to maintain social distancing health measure and to avoid disrupted academic calendars (Adelokun, Aliede, Enwerem, Ambassador-Brikins, & Abutu, 2020). This trend reinstates the relevance of social media in educational engagement. It also celebrates National Open University of Nigeria's (NOUN) courseware repository as open educational resources. Virtual classes on Zoom, Microsoft Team, Google Classroom and many others keep attracting the interests of learners in virtual education system, as the level of interactivity with the tutors is almost equal to face-to-face classroom affairs. All these technologically-induced developments in education have increased the number of school enrolments, enhanced continuous education and lifelong learning, and consolidated the traditional learning approach that fosters coordinated and robust academic curriculum (Beldarrain, 2006; Chaka, 2020; Muhirwa, 2009).

The introduction of instructional video as a subtle means of educational delivery scuttles the issue of inconvenience of class schedules in the interactive virtual classes (Chan, 2010). Though less interactive when compared to virtual classes, studies (Mayer, Fiorella, & Stull, 2020; Tang, Lu, & Zhou, 2020) have attributed the high rate of its adoption to convenience and conformity to personal schedules and the learner's control over what, when, where, and which scene of the instructional videos to watch. These, in addition to the opportunity to fast-forward the contents to avoid the redundant scenes; rewind it to grasp the interesting aspects; and watch over and over again until the messages are grabbed, stand out the medium for educational use. Studies (Hibbert, 2014; Lee & Mayer, 2018) also affirmed that instructional videos meet the educational needs of the non-traditional students, professionals, artisans and the international students who are not within the radius of the learning environment.

Based on empirical submissions (Adelakun, 2018; Adeoye, 2020), the use of social media for academic and research purposes is fast growing. The volume of educational contents presently on social media buttresses the submission that social media have become vital education resources. Although studies on social media relevance in education have been able to establish the growing rate of reliance on it for educational drives, none of the studies paid attention to the degree of credibility that such contents demand from the users to ensure confidence while applying the knowledge embodied in the contents to the society. There are certain research gaps in the relationship between the volume of the educational contents on social media and the trust the educationalists repose in the academic contents of the instructional videos. Restricting NOUN instructional video contents to the university repository may result to limited exposure to the potential beneficiaries. The challenge is, how secure and credible are the contents when made open on social media, particularly YouTube and what degree of trust would educationists have in it to beef up the knowledge gap and align it with the academic curriculum at various levels of post-secondary education? Will the users be able to distinguish the quality, standard and the originality of the NOUN's instructional videos on social media from others that were not subjected to academic and research rigours? Will they be able to accord the trust that the NOUN's instructional videos deserve when the contents are housed on social media together with others of unverified sources?

Literature Review

It is empirically documented that social media use in Africa is not evenly distributed among different categories of age groups (Whiting & Williams, 2013). The statistics from a substantial number of studies skewed in favour of the digital natives, who majorly fall within the youth age cycle. The skew of the data, which substantiate high level of social media adoption and use among the African youth is a plus to any study on the adoption of the media for educational purpose. The vantage stepped out of the fact that the bulk of the social media users in Africa as documented in Adelakun (2018) are school-age group who may find favour in using the media for knowledge sourcing and sharing purposes. Although, the concept of school-age population requires clarification as the age parameter is no more a distinctive characteristic for the classification. The concept is becoming cloudy as continuous and lifelong education through Open & Distance Learning (ODL) system attracts the aged and out-of school population into convenient schooling. The digital-immigrant category who majorly depends on traditional news media is always struggling to come out of the laggard category in the hierarchical level of adoption of the new media especially when the needs transcend news purpose.

Social media adoption and usage is exponentially growing by the day in Nigeria. Empirical evidences (Adelakun, Ademuyiwa & Oyebode, 2021) attribute the incessant increment in social media use in Nigeria to the rediscovery of the media as the most potent avenue for political campaigns. The study hypothesised and empirically justified a steady increment in social media use for political purposes from 2011 when Twitter was first used by one of the presidential aspirants to declare his intention to contest. After 2011 general election, politicians and their allies hijacked social media, most especially Facebook as the cheapest means to reach out to their target audiences, who are majorly the electorates (Adelakun, 2018). Until the beginning of Covid-19, the use of social media for educational objectives was at a low ebb. YouTube played host to insignificant proportion of educational videos of indigenous contents before Covid-19. The contents were not only made outside Nigeria but also not made by Nigerians. During Covid-19, academic lectures were uploaded on social media to enhance virtual learning. But the effort to streamline the contents to ensure originality so as to protect copyright; standard to maintain learning per excellence; relevance to avoid misleading knowledge; and credibility to maintain consumer trust, remains a big

challenge. Any attempt to gate-keep educational videos that are uploaded online is considered an infringement on the right to information and freedom of communication as entrenched in the international human rights declaration.

There is high similarity in the trends of social media adoption, subscription and use between Ghana and Nigeria. Studies confirmed that more Ghanaians are not only subscribing to social media but also use the platforms heavily, particularly for health information since the beginning of Covid-19. This makes Covid-19 a significant factor that prompted more subscription on social media. No specific empirical deduction attributing the use of social media for education objective to Covid-19 could be cited in this work. But studies relate the adoption of virtual learning environment by many higher institutions of learning in Ghana to more engagement of social media in facilitating learning. The case is similar in Uganda and South-Africa where the adoption of social media for education purposes was sped up by Covid-19 experience.

The relevance of instructional video to learning is enhanced by the audio-visual and motion advantage it offers. One great opportunity of instructional video as noted in Hibbert (2014) is that it accommodates unlimited number of students. Just like any of the mass media, instructional video can serve unlimited, heterogeneous and dispersed students at the same time. Another functional benefit of the educational medium that surpasses conventional broadcast media is that the contents can be accessed, revisited, downloaded, and shared to other consumers in order to enhance its visibility. It can also be reproduced as video-within video to substantiate or as a reference material in a related online lecture or another similar instructional video (Mayer *et al.*, 2020; Tang *et al.*, 2020).

The fact that most instructional videos online are characterised with unlimited access makes it a viable and cost-effective means of spreading knowledge. Studies confirmed that the poor and the educational less privileged found the medium of education more accessible and affordable to fill the gap of their unique educational deficiencies (Fiorella & Mayer, 2018; Lee & Mayer, 2018). In most African educational settings especially in Nigeria where industrial strike actions have reduced the public higher institutions of learning to an effigy of their past glories and a compromising avenue to create market share for the private higher institutions, opportunity for higher education has become an unattainable dream for the common man. The hope of those who cannot afford education at higher cost in private tertiary institutions rises in ODL, where the learning mode largely depends on online classroom and instructional video structure. Through instructional video, learners are at the liberty to select from numerous online lectures on specific topics that cover the areas of their academic or research interest.

Instructional video also paves ways for laboratory and industrial practical for learners and institutions. Practical-oriented lectures and technical practices are demonstrated on some instructional videos to keep online learners abreast with the standard practice in well-equipped laboratories or engineering workshops in conventional universities. Universality of education curriculum as well as international standard practices and structures are enhanced through instructional video contents. Studies (Chan, 2010; Kristanto & Mariono, 2017; Mayer, 2017) document the incessant increase in the statistical ratio of conventional university students who use instructional videos not only as alternative education sources but also for the consolidation of knowledge received and the filling of knowledge gaps. Researches have also confirmed high dependency ratio on instruction video by the lecturers in higher institutions of learning for knowledge updating, to compared methods and modes of teaching, and for the adoption of the new techniques of engaging students in standard learning processes.

Uses and Gratification Theoretical Perspective

The issue of how beneficial the consumers of instructional video find the contents on social media is a function of the level of convenience in its accessibility, usage, and the degree of satisfaction derived from its consumption. Experimentation and application of uses and gratification proposition in studies related to the media use and the satisfaction that the media audience derive from such use often confirms why people can't do without the media. The primary roles of the mass media and the expectation of the audience from the media, which studies summarised as information, education, entertainment, and merchandising corroborate some of the media effect theoretical propositions and models. Hence, the speculations and the unverified hypothesis is that instructional videos perform the same roles and gratify certain needs of the media audience just like conventional and other new media. All these explain why discussions and empirical justifications of instructional video contents and usage be subjected to uses and gratification theoretical explanations.

Uses and gratification theory, propounded by Elihu Katz, Jay Blumler and Michael Gurevitch explains the nature of the bond between the media and the media audience, which is the message. It is regarded as an extension of needs and motivation proposition that focuses on what the people do with media messages. Media audience are the consumers of what the media produce and the media messages are the products that the mass media offer to the audience. Economics theory of utility proves that consumers of a product will consume more as long as the product provides the consumers additional satisfactions. This buttresses the reason why the audience patronise the media. The needs that the audience put forwards define the roles that the media perform in a society. Indeed, as the media audience's needs become expanded, the media adjust its roles to meet the change in the demand. This also explains the concepts of media selectivity and preference. The needs of the media audience vary and that defines various medial roles, hence some media houses specialised in each of the audience needs to ensure utility.

It has been hypothesised that the needs that the audience of the instructional videos seek to gratify lies within the roles of the medium. The essence of engaging uses and gratification theory to discuss how the audience use instructional videos is to compare and confirm the degree of satisfaction derived from instructional video contents of unknown sources and those from the professional or university repository. The theory further buttresses the audience preference between accessing instructional video contents through university repositories or social media. Considering this theoretical perspective of needs gratification, opening NOUN instructional videos on social media demands serious consideration.

Methods

This study adopted triangulation approach to research designs, data generation instruments and data analysis procedures. Survey design was adopted to sample the opinions of various audiences of instructional video in four Anglophone African countries that were randomly selected. Considering the objective of this work and the heterogeneity and unequal digital versatility of the respondents, three different data gathering instruments were adopted. Online questionnaire was used to elicit responses from the digital native respondents who are within and outside Nigeria, printed questionnaire was used to elicit responses from digital-immigrant respondents within Nigeria while interview was used to elicit responses from NOUN management. Considering the multiplicity of audience characteristics and the level of acceptability of education, half of the respondents were selected from students and staff of online/ODL institutions while the remaining half were selected from other instructional video audiences.

An estimated proportion of instructional video users from online/ODL institutions across the sampled Africa countries was approximated to a million considering the level of its adoption and low degree of the digital compliance in some part of Africa. Using Taro Yamane formula ($n = N/1+N (e)^2$), the sample proportion of the respondents from online/ODL institutions amount to 400. Since this segment of the sample constitutes 50 per cent of the total sample size, the other segment accounted for the other half to make a total of 800 sampled respondents. In-depth interview was conducted with the NOUN. More copies of the online questionnaires than required number were sent out from which those that corresponded with the specific characteristics of the target respondents were selected. The links of many instructional video audience were got through their comments on the educational instruction video contents on social media and that made it easy to send online questionnaire links across to them.

Survey responses were quantitatively analysed and summarised on a single frequency distribution table. Interview responses were discussed in relation to the appropriate research question.

Data Presentation and Discussion

The two sets of data generated were used to respond to the research questions earlier raised. The opinion sample poll was subjected to quantitative analysis to establish how the instruction video users relate with the contents in term of usage pattern, the degree of satisfaction derived and further needs.

Q1: What is the users 'assessment of educational instructional video?

Table 1: Five-Point Likert Scale distributions of the users' assessment of educational instructional video contents

Users' assessment of Instructional video	Sample Size	Variable Structure	Max	Min	Mean	Decision rule
Awareness of educational instructional videos	800	Positive	5	1	4.87	Favourable
Access to instructional videos contents on NOUN repository	800	Positive	5	1	2.82	Unfavourable
Access to instructional videos contents on social media	800	Positive	5	1	3.43	Favourable
Frequency of educational instructional videos usage	800	Positive	5	1	3.35	Favourable
Relevance of educational instructional videos contents to users' educational needs	800	Positive	5	1	3.89	Favourable
Degree of satisfactions the users derived from instructional video contents	800	Positive	5	1	3.74	Favourable

*A positively structured variable + above 3.0 mean = Favourable, and vice versa

*A negatively structured variable + above 3.0 mean = Unfavourable, and vice versa

The distributions of the survey variables as presented in the table show the aggregate perceptions of instructional video users. The statistics indicates that the awareness of educational instructional video is the variable that recorded highest mean value. Considering the decision rule, the level of awareness was more favourable to the educational instruction video contents on social media which various studies considered of unknown or contending sources most especially among the non-ODL subscribers than those that are housed within the university repositories. Access to instructional video contents on NOUN repository was not favourably assessed. The shortfall could be attributed to the limited access to the repository unlike those that enjoy open access on social media. Contrarily, the variable on the access to instructional video contents on social media was favourably adjudged with a 3.5 mean value. This confirmed the openness of many of the instructional video contents on social media to public domain and corresponds with the demand for the NOUN's instructional video to be uploaded on social media to ensure unrestricted access.

High usage rate of educational instructional video were recorded among the respondents with 3.35 mean value. The usage rate indicates that the interest in instructional video contents is not a monopoly of the subscribers from ODL institutions but rather a beneficial platform to all who want to acquire knowledge or skills beyond face-to-face physical interaction. The respondents also confirmed that educational instructional video contents are highly relevant and address the needs for which they engage the medium. This significantly corresponds with the degree of satisfactions that the respondents derived from the educational instructional video contents

Q2: How does NOUN consider making her educational instruction videos open access on social media?

Director of Learning Content Management of NOUN in an interview confirmed the invaluable influence of the NOUN open courseware to the ODL instructors and students as well as non ODL users within and outside Nigeria. While reinforcing the reason why the NOUN instructional video contents are yet to be in the public domain unlike the university's course materials, he affirmed that the openness of instructional video contents to the public domain is still under consideration as the necessary steps to ensure the sanctity of the contents must first be ensured before fulfilling such demand.

Conclusion

The submission of Adalakun et al. (2021) on the online exuberance and the fundamental human rights to freedom of information that has lubricated access to information through social media has been extended to education needs. The submission has been significantly validated as the interest and usage of instructional videos on social media for educational needs stems out of the convenience, interactivity and the interest in lifelong learning that is devoid of age barrier. The essence of this work therefore confirmed the pressing needs of NOUN's educational instructional video contents in the public domain to consolidate the university's open courseware, which has become a major reading education resource within and outside the fold of ODL system. NOUN perspective to ensure the sanctity of

the university instructional video contents was considered a principal actor in maintaining the trust in the adoption and application of the video contents to knowledge.

Considering the two perspectives of needs and the gratification of needs for educational instructional videos of reputable source, this work thereby concluded that certain level of moderation be applied while the NOUN instructional video contents are made open access through social media to distinguish such from the unbranded contents.

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