

The effectiveness of Web 2.0 in marketing academic library services in some selected universities in South-South Nigeria

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ABSTRACT

The aim of the study is to explore the effectiveness of using Web 2.0 to market academic libraries services in some selected universities in South-South Nigeria to improve knowledge among users in the university community.

The study will adopt the mixed method approach. An exploratory survey research method design will be employed. The researcher will use structured questionnaires, and semi-structured face-to-face interview. SPSS will be used to sort, code and analyse quantitative data, while qualitative data will be analysed with Nvivo. The area of study will be three universities namely; University of Benin, University of Port-Harcourt and University of Calabar.

The researcher believes that results of this study can help inform academic librarians about the effectiveness of using such tools to market their library services. The study would also acquaint academic librarians on how Web 2.0 tools can be harnessed to improve the overall quality of their marketing strategies and enable them identify the Web 2.0 tools that are most suitable for their users. Furthermore, they would gain a better understanding that would assist in planning of policies; formulate management practices and theories on implementation of Web 2.0 as a marketing tool so as to improve on their services to their end users.

Keywords

Web 2.0, Web 2.0 tools, academic libraries, marketing, effectiveness.

1. Introduction

[3] defined Web 2.0 as a set of economic, social and technology trends that collectively form the basis for the next generation of the Internet; a more mature, distinctive medium characterized by user participation, openness and network effects. Such network effects are: databases that get richer the more people interact with them, applications that are smarter the more people use them, as well as marketing that is driven by user experiences and applications that interact with each other to form a broader computing platform [3]. Web 2.0 technologies include an increased emphasis on user generated content, data and content sharing, collaborative effort and the use of the Web as a social platform for generating, repositioning and consuming content [1]. The term Web 2.0 was popularized at the O'Reilly Media Web 2.0 conference in 2004 [2], [4].

The applications developed under the Web 2.0 umbrella include Internet forums, message boards, weblogs (blogs), publishing (wikis, wordpress, blogger.com), podcasts, pictures, social networking sites (Facebook, MySpace, LinkedIn), social photo and video sharing (YouTube, Vimeo, Hulu, Flickr, Photobucket), microblogger (Twitter), Digg, StumbleUpon, Delicious, Scribd, Social news (Dig, Propeller), audio (iTunes, Pandora, Rhapsody), virtual worlds (sound life) and social bookmarking (Del.lcio.us, Simpy, Blinklist), Academia.edu [5] - [8]. The concepts of Web 2.0 tools have led to the development and evolution of web-based communities, host services (that allow users to upload content that they have created for others to view such as YouTube for videos and Flickr for photographs) and applications [9].

Libraries can be part of Web 2.0 by applying the concepts, principles and technologies for rendering exemplary services to users in electronic world [11]. The old concept of book-oriented librarianship has long been taken over by user-centred librarianship [10]. With the rapid changes in the field of information and communication technologies (ICTs), library and information centres are constantly changing and Web 2.0 tools have assisted librarians to overcome barriers to communication and the "distance" between the libraries and users [12].

Consequently, to keep their prominent position as information providers and to promote value-added services delivery amidst great competition, rising costs and budget cuts, libraries have begun to realize that marketing of information products and services is an integral part of information services. Marketing is a means for improving user satisfaction and promoting the use of services by users. With increased competition in the world of information, marketing is a factor for survival with many academic libraries adopting and implementing Web 2.0 applications to promote their services [13] - [14].

Extensive studies including [6], [16] - [17] and Techataweewan (2012) have revealed how libraries in United States, Europe and Asia are using Web 2.0 tools to enhance their services to patrons. Various studies in Africa have also revealed the potential and reported the actual use of Web 2.0 for dynamic and effective service delivery by libraries [15], [19].

However, a review of literature shows that although Web 2.0 tools are used to market academic library services [18], [20], no assessment on their effectiveness in Nigerian universities has been conducted. Furthermore, while there have been some efforts in the use of Web 2.0, an assessment needs to be done so that academic libraries in Nigeria are not left behind as the rest of the developed world fully embraces Web 2.0 and races towards the newer 'Web

3.0' [23]. Therefore, it is important to study the effectiveness of Web 2.0 tools in marketing academic libraries services to improve knowledge among users in the selected universities in the South-South Nigeria.

2. Preliminary Literature Review

Web 2.0, according to [22], has generated other related terms such as Library 2.0, Librarian 2.0, User 2.0, Learning 2.0, and Information Literacy 2.0. These terms basically represent myriad viewpoints concerning how academic librarians can utilize Web 2.0 tools for creating, remixing, and disseminating information as well as enhancing their services [25]. Web 2.0 has also been referred to as a social revolution enabling and encouraging participation through open applications and services [24], a technology with profound potential for inducing change in higher education [26], second generation of web-based tools and services that allows easy publication, sharing of ideas and re-use of study content, commentaries and links to relevant information resources [27], and community-driven online platform encouraging users to be collaboratively creating and sharing their own insights on current and emerging themes within their education rather than technology [28]-[29].

[31] opined that libraries should explore novel ways of communicating and attracting users through the use of Web 2.0. [32] advocated the use of Web 2.0 by libraries in order to serve the users better, attract and retain potential users. He further cautioned that if libraries do not use these tools to enhance services, they are likely to be ignored by users. According to [30] at a time when Web 2.0 applications in libraries have gained growing popularity globally, it appears that the library must consider marketing its services more regularly through the Internet, taking advantage of Web 2.0 applications to improve access to its users and to promote information services.

Several studies found that Web 2.0 tools can be used for enhancing library services [31]-[33]. *Tedd (2008)* observed that Web 2.0 tools offer new opportunities for better design and delivery of library services but will also make more demands on the library staff and system. A review of literature indicates that there is a high demand for new generation web applications in libraries. Similarly, [35] and [36] advised that by not following technological innovations and trends on the web, libraries will not be able to compete with services such as Amazon or Google and may lose their position as primary information providers. [37] conducted a study on how libraries use Facebook to market their services and concluded that Facebook provides an easier and more manageable way of enhancing library services and encouraging faculty to use library resources. Some academic libraries embed the library catalogue into Facebook to allow students to access the content of the library catalogue without actually visiting the library's web site [40].

Twitter also can be used for exchanging information and librarians can be encouraged to use it to hold conversations with users [42]. [38] demonstrated that Web 2.0 applications can be used for marketing purposes. He concluded that librarians are using SNSs like Myspace and Facebook "to promote library affiliation and community building; virtual environments such as Second Life to create alternative library spaces; and RSS feeds, wikis, and blogs to post announcements and post other information". [41] conducted a study on the online marketing strategies for reaching today's teens and found that Web 2.0 applications are the best tools for marketing library collections,

marketing the library itself by posting different photos inside the library of computers, books, rooms and so on, and marketing library programmes.

Further review of literature shows that some of the challenges of using Web 2.0 tools are inadequate number of computers, unstable Internet connectivity, and insufficient electricity; inadequate awareness and Internet skills; inadequate financial resources; and a shortage of trained ICT and library staff. Others are lack of supportive policy or guidelines, lack of security and lack of ownership of intellectual property of Web 2.0 services [39], [18], [43].

The gaps identified from the reviewed literature showed that only University of Benin (UNIBEN), University of Port-Harcourt (UNIPOINT) and the University of Calabar (UNICAL) have their library web pages linked to Web 2.0 sites. Therefore, little is known about how the other academic libraries in the region are actually using Web 2.0 tools to market their services and the factors influencing the effectiveness of the tools used. It is expected that the results of this study will help academic libraries in the South-South region to assess the Web 2.0 tools used for marketing, reflect on the factors influencing their use and effectiveness, identify the challenges hampering their effective use and gain a better understanding of the best practices to enhance the impact of the tools to helping the libraries to deliver their mandates.

3. Research Problem and Objective: Key questions to be asked

The real challenge for libraries is not how to manage their collection, staff and technology but to turn these resources into services that effectively meet the needs and wants of their users. One of the ways to enhance the reach and effectiveness of library services and products is strategic marketing. Indeed, the marketing of library services should not focus only on increasing minor elements such as gate count or circulation figures as a way of measuring success but on their users' satisfaction with the services and how they are delivered [45]. Therefore, academic libraries need to embrace and apply all available tools and strategies to ensure that their services and products as well as how they are delivered meet the expectations of their communities [44].

Many academic libraries in Nigeria have embraced and use Web 2.0 tools to promote library services [19], [46]. However, little assessment has been done to establish the effectiveness and factors influencing the use of Web 2.0 tools for marketing academic library services. It is probable, therefore that most academic libraries are not learning from each other's experiences and thereby replicating mistakes. It is also possible that some libraries are afraid to use emerging Web 2.0 tools because they have not been exposed to the other libraries using them in the locale. Importantly, some libraries may have adopted Web 2.0 through imitation and may not be using them effectively to market their services. Available literature, as cited above, does not demonstrate a comprehensive coverage of the issues. In view of this gap, this study aims to explore the effectiveness of Web 2.0 tools to market academic library services. The study will further examine how academic libraries in Nigeria can take clue from libraries of top academic institutions in the world on the best practices of integrating Web 2.0 tools for effectively marketing.

The study will seek answers to the following research questions:

- Do academic libraries in Nigeria actually use Web 2.0 tools to market their services?
- If so, to what extent are these tools being used to market their services and products?
- What are the Web 2.0 tools academic libraries in Nigeria use to market their services?
- What impact does the use of Web 2.0 tools have on the effective marketing of academic library services and products in Nigeria?
- What challenges hamper the effective use of Web 2.0 in marketing the services and products of academic libraries in Nigeria?
- What are the best practices academic libraries can apply to effectively integrate Web 2.0 tools to market their services and products?

4. Research Objectives: Broader issues to be investigated:

The aim of this study is to explore the effectiveness of using Web 2.0 tools to market academic libraries services in some selected Nigerian universities in the South-South region. The study will identify the Web 2.0 tools used in the area of study as well as explain their adoption and application to market academic library services. Furthermore, the study will investigate the challenges of using Web 2.0 to market academic library services as well as evaluate how the challenges posed on the use of Web 2.0 tools for effective marketing can be overcome by adopting the relevant best practices.

The broader issues to be investigated in the study are:

- 1) The features of Web 2.0 which make it a good platform for marketing academic library services and products;
- 2) The potential and application of Web 2.0 tools in marketing library services and products;
- 3) The actual application of Web 2.0 tools in marketing academic library services in Nigeria;
- 4) The impact of Web 2.0 tools in marketing academic library services in Nigeria;
- 5) The factors influencing the use of Web 2.0 tools to market academic library services and products in Nigerian; and

5. Principal theories upon which the research project will be constructed (research design):

This study will adapt the Unified Technology Acceptance and Use of Technology model (UTAUT), a model developed by [54], synthesized from eight existing models of use of technology that include Theory of Reasoned Action (TRA); Theory of Planned Behaviour (TPB); Technology Acceptance Model (TAM); a combination of Technology Acceptance Model (TAM) and Theory of Planned Behaviour (TPB) Model (C-TPB-TAM); Diffusion of Innovation Theory (DOI); Motivational Model (MM); Model of PC Utilization (MPCU); and Social Cognition Theory (SCT) [49].

TRA was developed by [47]-[48] and has three general components namely behavioural intention, attitude and subjective norms and suggests that a person's behaviour depends on the person's attitude and subjective norms. It implies that a person's intention to behave in a certain way is a function of two basic

determinants: one personal in nature and the other reflecting social influence.

TPB is essentially an extension of TRA by [47], which includes measures of controlled belief and perceived behavioural control. Perceived behavioural control shows that a person's intention is influenced by how difficult the behaviours are perceived to be and the perception of how successfully the person can and cannot perform the activity.

Based on TRA, TAM was developed by [49] and deals more specifically with prediction of the acceptability of information system and founded on the hypothesis that technology acceptance and use can be experienced in terms of a user's internal beliefs, attitudes and intentions. C-TPB-TAM described the combination of the best of the TAM and the TPB models as the predictors of the TPB with perceived usefulness from the TAM to provide a hybrid model consisting of four factors, namely attitude, perceived behavioural control, subjective norms and perceived ease of use [51].

Developed by [22], DOI describes the patterns of adoption, explains the mechanism, and helps predict whether a new invention will be successful; MM explain the origin of behaviour initiated by the individual's desire for exterior gains and the appropriateness of the technology [53]. MPCU is underpinned by theories of attitude, behaviour and interpersonal relationship theory. It suggests that the utilization of a PC by a knowledge worker in an optional use environment would be influenced by the individual's feelings (affect) toward using PCs [54], while SCT postulates that cognitive development is analysed in terms of the sets of cognitive competencies governing given domains of functioning rather than discrete uniform ways of thinking [52].

The four major constructs that determines technology acceptance and use in the UTAUT model are:

- Performance Expectancy (PE): the degree to which an individual believes that using the system will help him/her to attain gains in job performance;
- Effort Expectancy (EE): the degree of ease associated with the use of the system;
- Social Influence (SI): the degree to which an individual perceives that important others believe he or she should use the new system; and
- Facilitating Conditions (FC): the degree to which an individual believes that an organizational and technical infrastructure exists to support use of the system [55].

According to [55] the effect of these four constructs is influenced by four other variables:

- Age: the degree to which the age of an individual affects their use a new system;
- Gender: the extent to which if being a female or male makes it easy to use a new system;
- Experience: the degree of use over time with gaining experience in the use of a system; and
- Voluntariness: the degree the system is used voluntarily.

Even though the UTAUT model is relatively new, its suitability, validity and reliability in technology adoption studies in different contexts has been proven by different scholars [55] [57]-[58].

Performance expectancy and effort expectancy are used to integrate variables such as perceived usefulness and ease of use. The model suggested that the effort expectancy construct can be significant in determining user acceptance of information technology. The model explains that individual differences influence technology use. The UTAUT was developed to explain users' behaviour intention to use an information system as well as increase usage behaviour [56]. The researcher will use the four constructs to answer the research questions as shown on table 1.

Table 1: Research questions and UTAUT variables

S/N	Research questions	UTAUT Variables
1.	Do academic libraries in Nigeria use Web 2.0 tools to market their services?	Use Behaviour
2.	To what extent have academic libraries in Nigeria used Web 2.0 tools to market their services?	Use Behaviour
3	What are the Web 2.0 tools academic libraries in Nigeria use to market library services?	Use Behaviour
4.	What effects do using Web 2.0 tools have on the marketing of academic libraries services in Nigeria?	Performance Expectancy (PE) Effort Expectancy (EE) Social Influence (SI)
5.	What are the challenges academic libraries in Nigeria face in using Web 2.0 tools to market their services?	Performance Expectancy (PE) Effort Expectancy (EE) Social Influence (SI) Facilitating conditions (FC)
6.	What are the best practices academic libraries can apply to integrate Web 2.0 tools to effectively to market their services?	Effort Expectancy (EE) Social Influence (SI) Facilitating conditions (FC)

6. Research methodology and methods:

The research design is a strategic framework for action that serves as a bridge between research questions and the execution of the research. A research design guides and directs the collection and analysis of data [59]-[60]. Like building plans, research designs ensure that the study fulfils a particular purpose and that the research can be completed with the available resources [59]. An exploratory survey research method design will be employed in this study to enable the researcher collect data, analyse data and draw conclusions because the topic of study is new. A survey research is chosen due to its capacity to generate quantifiable data on a large population group that is representative of a wider population for the purpose of testing theory [61].

A post-positivist research approach will be adopted for this study. Post-positivism advocates methodological pluralism (mixed methods) which is built on the assumption that the choice of a research method is based on the types of research question posed

by the research, with the view that each research approach can contribute to the understanding of a general research problem by addressing different specific research problems [62].

The mixed methods research approach will be adopted for this study. It offers richer insights into the phenomenon being studied and facilitates the capture of information that might be missed when only one research design is used. The intent for using mixed methods (quantitative and qualitative research designs) is to maintain the strengths and ameliorate the salient weaknesses in both designs [63].

The population for the study will be extracted from UNIBEN, UNIPORT and UNICAL in the South-South region of Nigeria. The universities were selected on the criteria of being the only institutions with viable library websites linking Web 2.0 sites. The selection of the South-South region was prompted after a preliminary survey by the researcher showed that little research has been done on universities in that region. The researcher's familiarity with the values and norms of the South-South region was also a contributing factor to the choice.

The researcher will use only the main libraries because the institutions do not have a uniform number of faculties and faculty libraries. For instance, UNIBEN has 13 faculties and 12 faculty libraries; UNIPORT has 16 faculties and 12 faculty libraries while UNICAL has 9 faculties and 5 faculty libraries. Currently, the total population of library staff is 550; UNIBEN is 206 while UNIPORT is 141 and UNICAL, 203. The students population are as follows; UNIBEN, 40,000; 35,000 for UNIPORT and UNICAL respectively. The sample size for the total population of library staff as illustrated in [64] table for determining sample size =226 and for the total population of students >100,000 = 384.

The triangulation process of using the questionnaire, interview and content analysis will be used in this study. The purpose of multiple sources of data collection in research is to ensure an increase in the reliability of observation. Triangulation is the use of at least two methods, usually qualitative and quantitative, to address the same research problem. When a single research method is inadequate, triangulation is used to ensure that the most comprehensive approach is taken to solve a research problem [66].

Survey questionnaire distributed at the library to solicit quantitative data from 226 library staff and 384 students on the use, types, impact, challenges and best practices of Web 2.0 for marketing academic library services using simple random sampling. This is to reduce the potential of being bias in the selection of cases to be included in the sample. Semi-structured interview will be used to collect qualitative data from purposively selected two library staff (a sectional head and library ICT staff) in each university. Purposive sampling techniques involve selecting certain units or cases based on a specific purpose [68], to enrich the study. The survey questionnaire will be administered to library staff and students at UNIBEN, UNIPORT and UNICAL and a research assistant will be employed where necessary. A face-to-face interview will be conducted with pre-selected library staff on how the library advertises the Web 2.0 applications to get followers, if tools achieve the purpose of marketing, whether there a policy or guidelines regulating the use of these tools etc. Content analysis of documentary sources such as web sites and document will also be used to complement the questionnaire and interview. This is to ensure that the outcome of the study is reliable. Only library staff and students will be used for this study, students are seen as a generation of tech-savvy young people

immersed in digital technologies and have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and tools of the digital age [65], [68].

Statistical Package for Social Sciences (SPSS) will be used to sort, code and analyse quantitative data while qualitative data will be analysed using content analysis. SPSS is chosen because of its ability in allowing large quantities of data processing by computer with organization and interpretation of data [67]. In addition, frequency counts and percentages will be generated and presented in charts and tables.

A pre-testing of the questionnaire will be done before administering to respondents, to ensure the validity. It is imperative that questionnaires be pre-tested before being implemented to root out ambiguous and ambivalent questions and to clarify the purpose of the questions [70]. For reliability the study will undergo review by my supervisor to ensure documentation of critical incidents (documents and interview notes) and products (findings, interpretations and recommendations) and attest that these are supported by data.

The standards and ethics of research of all institutions involved will be adhered to. Participants will be duly informed and briefed on the purpose of the study before the questionnaires are administered and interview is conducted.

7. References

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