
The Internet and the Nigerian Woman: A Case of Female Undergraduates

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Abstract: The Internet has drastically changed information and knowledge sharing processes globally. It is a widely accepted medium for transformation and empowerment. Individuals, groups, communities and nations, including women in their quest for a gender sensitive society have adopted the Internet as a viable tool. However, despite the countless benefits of this important tool of communication, research, entertainment, publishing, and business, there are challenges that affect Internet access and use among female students at the University of Maiduguri, Nigeria. This paper examines Internet access and use among female undergraduates at a Nigerian University. Selected female undergraduates completed questionnaires. The findings shows that the university computer centre (University Cyber Café) is the major Internet access point among the respondents. Research (information searches and learning) ranked first in the uses of the Internet among respondents, with financial constraints as the major challenge to access and use of the Internet. Respondents found women-related websites useful. They derive a certain gratification from these sites. However, most respondents do not post or contribute material or information on the web. Their interaction with the web involves mostly downloading. The study concludes that Internet access and use status among female students at the University of Maiduguri and women in general would be greatly enhanced if women organizations concentrated on addressing the challenges identified in this study. Attention should be paid to this category of women (university students) who have the educational capabilities and Internet potential to impact women empowerment efforts.

Keywords: ICTs, Nigeria, Internet access, women's Internet use, university cyber café, case study

Introduction

Information and communication technologies (ICTs) have dramatically reshaped and transformed global socio-structural patterns. They have changed the ways people organize their lives and participate in various spheres of society. Oso (2005) notes that information and communication technologies have raised hopes for fundamental changes and even renewal in many areas of our lives and at all societal strata. ICTs in the 21st century represent a significant opportunity for advancing fast and affordable knowledge sharing and equitable development.

ICTs such as the Internet have emerged as indispensable tools in the 21st century. Internet Access provides basic infrastructure for the contemporary world and a set of tools that, when appropriately used, can benefit people in all spheres of life. Given the convergence with other technologies (mobile phone, traditional media, computer, etc.) they also offer a mechanism for combatting pervasive societal stereotypes and marginalization that continue to hold back progress for equitable development.

In just over two decades, the Internet has stimulated a thorough revolution. Never before has information been so speedily and widely available, knowledge sharing and acquisition made easy, business more efficient, and people better connected to one another. The Internet has been promoted as an important tool in ensuring that marginalized groups, including women, are important participants in the global information society. Women are aware of the power of sharing information and knowledge as strategies for collective mobilization, advancement, and empowerment, with the Internet serving as an important medium. While the Internet alone cannot end gender inequality, it can serve as a catalyst for social change and empowerment. It can be a great equalizer (World Resources Institute 2004; Intel Corporation and Dalberg Global Development Advisors 2012).

Marginalization and gender inequality or discrimination have made it difficult for women to access and benefit from ICTs. Internet gender inequality is particularly salient in developing countries, with very real consequences for women and girls. For example, on average, 23 percent fewer women than men are online in developing countries. This represents 200 million fewer women than men who are online. Similarly, the gender gap is more pronounced in the developing world, where 16% fewer women than men use the Internet, compared with only 2% fewer women than men in the developed world (Intel Corporation and Dalberg Global Development Advisors 2012; ITU 2013). Internet gender inequality reflects and amplifies existing inequalities with respect to gender.

Unless women are actively involved in the planning and use of these technologies, there is risk that ICTs will serve to reinforce rather than overcome gender inequalities. Recognizing the importance of women using ICTs many projects are incorporating gender analysis to address women's access, participation and determination of how such technologies are designed and deployed. It is obvious that many women who use the Internet derive profound benefits through it, including economic and educational opportunities, a community of support, and career prospects.

These benefits of the Internet have increasingly placed demands on users (groups, individuals, men and women) to explore access and uses of this important technology. Studies with improved research technologies reveal that female users continue to increase in percentages of on-line community especially in the western world (ITU 2013). Expanding Internet access for women would provide a significant boost to national income. It would benefit the global community when women around the world are informed, connected, educated, and able to contribute their maximum toward economic and social development (Intel Corporation and Dalberg Global Development Advisors 2012).

The overriding assumption is that the effective use of the Internet by female university students is an obvious boost for women's struggle for equality, as these categories of young women are expected to be educated and possess the potentials to achieve the set goals.

Although the Internet and other ICTs have to some extent been adopted and appropriated in the everyday lives of women in Western countries (United Kingdom, USA, some Asian countries: Indonesia, Singapore etc.), it is not the case in most developing countries. There are challenges that hinder them from harnessing the enormous benefits of these technologies (Wilson, Gapsiso & Usman 2014).

This is not to say that centres for accessing Internet are not available in certain environments. For instance educational institutions in Nigeria, like the universities, have centres for accessing the Internet, owned and operated by the authorities and also a sparse presence of private operators. The university environment is one where various categories of knowledgeable women groups exist. The expectation is that as a centre of learning, young women (female undergraduates) should showcase the potential of women's emancipation through new technologies, such as the Internet. Thus, it becomes imperative to explore the status of female undergraduates in Nigerian universities, with a particular focus on the University of Maiduguri.

Nigerian universities by virtue of their status as the highest centre of learning are among the few earliest beneficiaries of the Internet technology deployment in Nigeria and hitherto enjoy funding from agencies to boost ICT infrastructure. One example is the Petroleum Technology Development Funds effort to provide 100 modern computer workstations at all Federal Universities with VSATs. The inclusion of computer appreciation as part of university curricula has necessitated the setting up of computer centres to enhance knowledge in application and use of computer and Internet technology.

The University of Maiduguri, is located in the North East of Nigeria. The university has a modern computer/Internet Centre. The University of Maiduguri Computer Centre began full operation in 2001 and was formally opened to public users in November 2002. The centre runs various computer-training programmes and a cyber café open to users for 24 hours daily at a reasonable fee. The cafe records high number of users daily, especially when school is in session. Over 300 people visit the cafe daily, including the female undergraduates. There are other Internet Access points in the university, such as departmental and faculty Internet points, the Ramat Library and some administrative offices. The Centre also offers wireless Internet service to interested users. It is also impossible to overlook, the mobile Internet services available on campuses of Nigerian universities. However this study focus on access points established and operated in the university. This is to give an insight into the utilization of these centres by undergraduates.

Since this technology is available in Nigerian universities and with several compelling factors (compulsory computer/Internet appreciation courses, availability of Internet centers, constant enhancement of Internet facilities from 2001 to date) for Internet use, this paper examines the status of Internet access and use among female undergraduates at the University of Maiduguri. The research fills a gap in knowledge with respect to understanding access and use of the Internet among a category of women (undergraduates at the University of Maiduguri, Nigeria).

The use of the Internet in undergraduate education encourages student-faculty exchange, cooperation among students, active learning, prompt feedback, time management, communicates high expectations and respects diverse talents and ways of learning (Chickering and Gamson 1991; Bankole and Oludayo 2012). As the Internet provides access to a massive amount of information, it seems reasonable to point out that it plays a large role in the leisure time pursuit of knowledge.

The educational institutions like the universities where access to Internet and knowledge of its potentials abound among various categories of women, female undergraduates like their male counterparts and other women categories (such as lecturers, housewives, administrative, technical and support staff, other university residents) use the Internet for several purposes

According to Smith and Balka (2005), women have been creative in finding ways to send messages to each other. Whatever it is called, network building among women has been around for a long time. This network building is achieved through many types of transmission, such as information exchange at a well to washroom, mirror notices and in recent times, the use of international communication systems, such as the use of computer networks, to connect geographically dispersed women and facilitate grass-root feminist activism. Messages/ideas exchanged on these networks focus on issues that affect women and discussion about access opportunities and appropriate uses of ICTs to empower women (Smith and Balka 2005, Herring 2000).

Smith and Balka (2005) points out that decision about Science and Technology affects the lives of women; hence the need to be involved if they are to have their interests represented in those decisions. Women must be “technoliterate”, educated consumers, able to understand, advocate and participate in public decision making on issues that affect life generally. All these require knowledge that could be made available through information sharing. Accessing and using Internet technology would not only inform but also encourage women globally to participate in decision-making especially on issues that affect them. Smith and Balka (2005) adds that if information is power, it can be used to empower as well as control. Power can flow up, down and around in an information system, depending on how it is designed. If everyone gets and manages all the information, power is evenly distributed.

In this info-tech driven age, women do not have to rely on the copy machine and postal mail to share knowledge. They can have access to feminist literature online, search for latest development on a full range of feminist issues, leave messages for other rural feminists and connect and chat (Dillman 1985; Wilson, Gapsiso & Usman 2014). The Internet can give women an opportunity to learn and share information on all issues. Smith and Balka (2005: 71) puts it thus:

“(…), I can be hooked up with feminists throughout the country and around the world. I can share resources; I can know I am not alone. This is a particularly significant kind of information to share. For those of us who are part of social change movements, who often don’t feel a part of much of the culture around us, we need to know there are lots more of us out there. I can live most anywhere, places where feminists are few and far between, and still be part of a feminist reality. Then I don’t have to depend on the commercial media which I already know denies me information about feminist projects.”

Internet technology is obviously a useful instrument for women and a very important alternative communication channel. The success of the Internet however depends largely on access and uses. It is only when women have access to the Internet that they can use it and only when it is used appropriately that the set target can be achieved. Morahan-Martin (1998) notes that access and use of the Internet has important economic, educational and social benefits. Many organizations now use the Internet to announce jobs and organizational information. The Internet provides several opportunities for users. It is a mechanism for information dissemination and a medium for collaborative interaction between individuals and their computers transgressing wide geographic distances (Singh 2002; Jagboro 2003). Content created on the Internet ranges from simple e-mail messages to sophisticated documents (sites) incorporating sound, image and words (Evans 1996). It is a “live”

constantly “moving”, theoretically borderless medium with potentially infinite space for the production and circulation of information.

Peter and Lankshear (cited in Jagboro 2003), assert that while printed materials have a certain fixity and finitude, text published via the Internet have a much more fluid character. With texts no longer housed in libraries or bookshop shelves, it becomes impossible to “pin” all or even most of the available materials in given subject areas for archival classification purpose. The Internet might thus be described as an ocean of information subject to the decline and flow of various forces (political, corporate, institutional), creating an ever shifting shoreline (Jagboro, 2003). It is little wonder that women groups worldwide have adopted the Internet technology.

Beijing Declaration number 35 of the Fourth World Conference on women and the follow-up conferences in year 2000, 2005, 2010 and the Beijing +20 emphasizes the determination to ensure women’s equal access to information and communication, among others, as a means to further the advancement and empowerment of women and girls (UN Women, n.d). World Resources Institute analysis on Digital Dividend (2004), highlights that numerous projects and initiative are now being introduced to train women in the use of Computer and other ICTs. For example the Bayanloco Community Learning Centre, Kaduna, Nigeria, trains women in rural areas in Nigeria to use information technology for peace and poverty alleviation. Through these services, women have access to computer and other ICTs training, access to health information and micro credit programmes. Indra Soochna Shakti is another ambitious project led mostly by state government of Chatisgarh to empower an entire generation of a quarter million school girls in all 1,605 government high schools in India by providing four years of high school information technology education for free.

Another programme is Tel-Net that equip rural and semi-rural women in the Bangalore district with vocational information technology skills. Fantsuam Foundation is an initiative designed to provide satellite Internet to villages in rural Nigeria. For example, the Fatsuam VSAT provided the first rural-based Internet access in Kaduna State, Nigeria. In Mauritius, The National Computer Board provides ICT awareness courses and training to women associations of different regions across Mauritius (Association for Progressive Communication 2004, National Computer Board 2015)

People use the Internet for different purposes. A high proportion of female Internet users have done activities such as seeking health or religious information on the web, while a large percentage of male users have sought news, financial information, sports news and political news (gender differences). Those from the high-income households and who have college degree are more likely than those with modest income and education to do a host of things online, including looking for government information, social networking, engaging in online banking and participation in online auction publishing etc. (class differences). Internet adoptions has increased in all demographic groups but there are still pronounced gaps in Internet use along several demographic lines (Duggan 2013).

Ochieng (2002) points out that the formation of e-network in Africa has been an efficient catalyst in disseminating information on issues affecting women organizations at grassroots, national and international levels. The vigour of women’s struggle to make Internet accessible and put to proper use is gaining momentum. Gender in Africa Information Network (GAIN) is an organization that shares information on gender justice in Africa. The Association for Progressive Communication (APC) for African Women is set up to promote gender equity in the design, implementation and use of the ICTs in building women networks. Women’s Net, supports the coordination of the South African women movement through provision of training and facilitating content dissemination and creation that support women, girls, women’s gender organizations and networks to the control of their own content and ICTs use (Women’s Net 2011).

Francophone Africa circulates information on health and rights of women throughout Africa through the Internet. Women Right Watch campaign against gender-related persecution and offer free legal advise to affected women (accessible online). These and many more women organizations work to make the Internet accessible and used appropriately (Foundacion Asseso 2000).

Furthermore, Ochieng (2002) points out that, the use of the Internet, for advancing the interests of the uneducated and rural women must take into account the extent to which education and economic resources determine access and use. Other issues to take into account are ways in which the content generally available on the Internet ignores the information needs of the majority of African people, especially women. Among many supporters of the Internet information revolution, the optimism in the potentials of the Internet to democratize knowledge and ensure the sharing of information and ideas at a global level seriously ignores the fact that the information revolution is occurring in the context of entrenched global power relations. While the Internet makes available numerous possibilities for African women progressive networking and knowledge sharing, they are not value-free or neutral tools that are freely accessible to all.

Brayton (1999a) points out that men may dominate the Internet in term of numbers at present but the Internet offers space that can be used by women for connecting, networking and sharing information with other women. Women actively involved in the Internet culture are true part port. They not only have a presence and a voice; they are spinning new ideas and thoughts through their web pages, making connection with other women and organizations. Women are interested in the Internet as a result of the possibilities it offers for communication. These possibilities, according to Brayton (1999b: 195) can include:

“...having connections to other women and women’s groups, where one’s sense of community is not tied to geography but common shared interests. Having the ability to communicate with a wide range of women is also about the ability to mobilize women. By sharing information across the Internet, access to new methods of communication between women can facilitate social changes. Using E-mail to circulate petitions or placing an international web graphic on one’s web page to show solidarity, increase awareness and share experiences remove our sense of isolation and alienation on-line.”

In this case, the Internet provides a forum where everyone’s voice including those of women are expressed and heard.

The online engagement among women groups globally indicates that women have embraced the Internet as a tool for advancing their cause. This is evident in the numerous women websites and the effort of women organizations to make it accessible and appropriately used. There are, however, the existence of disparities and other problems. Ochieng (2002) observes that most information available on the Internet, for example, relates to and is generated in Western countries especially the United States. However, the combination of massive, untapped markets and weak local content offerings has already inspired some women to work towards addressing this challenge. For example, the SuperMama website cofounded by Yasmine El-Mehairy and Zeinab Sami in Egypt in 2010 offers tools and information in Arabic for new mothers in the Middle East (Weingarten 2013).

Margerison (2001) points out that communication technology increasingly pervades many facets of human existence. This is, however, not the case in developing countries of the world. There are fears that cyberspace technology such as the Internet tends to deepen existing social inequality by giving the wealthy more access to information while shutting out the poor. The United Nation Development Programme (1999) reports that with communication technologies playing increasingly vital roles in economic development, education, health care and governance, the exclusion of those who are poor, illiterate, rural or

non-English speaking has broad ramifications. A large majority of the world's population has never heard of a dial tone, let alone heard of downloading from something known as the World Wide Web.

However, in recent times the situation has changed. U.S. State Department, Intel, and U.N. Women are constantly working to bring hundreds of millions more women online and double the number of female Internet users in developing countries from the 600 million in 2012 to 1.2 billion in 2015 (Weingarten 2013). Although there is still an obvious digital gap between the developed and the developing countries, the world has recorded an increase in the number of Internet users (United Nations 2012). The low number of Internet users in developing countries calls for increased efforts in shaping and implementing appropriate policies to assist everyone to harness the benefits of the Internet and advance sustainable development. It is not just a matter of infrastructure not being readily available, or the cost being too high. Even if the telecommunication resources were available and affordable, most of the world's poor would still be excluded from the benefits of global communication due to illiteracy or the total lack of computer skills (Margerison 2001).

According to Weingarten (2013) two of the most critical factors that can influence whether a woman gets connected to the Internet are availability and affordability. Even though the price of a broadband Internet connection has plunged for many parts of the developing world, it still costs on average more than 40 percent of annual per capita income. Cultural obstacles are also a factor affecting women's Internet engagement especially in developing countries. For example, some husbands forbid their wives from using the family computer because they're afraid of exposing impressionable women to inappropriate sexual content. Other inhibiting factors are poor financial status of women (most women especially in Africa are full house wives without paid jobs), religious and patriarchal restrictions on women in some societies.

Weingarten (2013) further points out that Internet cafes (one of the easiest ways for people to access the Web in many developing countries) are impractical for women who can't leave their homes for religious and cultural reasons "And the stereotype that women just can't be trusted with pricey tech also thwarts potential new users" (Weingarten 2013). Another important reason why many women stay offline is that they often don't know what the Internet is or how it could help them, so they have no incentive to learn about it or seek access to it.

A country like Nigeria with a population of over 170 million has a low Internet access status when compared to countries of the West (such as the United States). In 2014 Nigeria had 37.5% Internet penetration with 67,101,452 Internet users while the USA has had 86.7% penetration with Internet users standing at 279,834,237. This implies that a greater number of Nigerians are still cut off from this technology. Osuagwu (2013) notes Nigeria seems to have two major problems with respect to Internet penetration. One is that of low penetration, another is poor women participation on the web. There is also the challenge of fully engaging on the Internet, which requires feeling conversant (knowing what to look for, how to search and how to leverage networks, knowledge and services, as well as having fast, unrestricted, reliable access).

Significant consolidation has also occurred in Nigeria's Internet and broadband sector, from over 400 ISPs in 2009 to around 120 in early 2012. New powerful players from the fixed wireless and mobile network operator camp have entered the market with 3G mobile and advanced wireless broadband services (4G) LTE networks (BuddeComm 2012). In recent times, the growth in telecommunication infrastructure has led to an increase in Internet connectivity. More people get connected to the Internet through VSAT and even through their mobile devices. Governments in Africa in their ICT reform programmes have made efforts to liberalize the market and privatize the sole carrier. For example, Nigeria's

telecommunication sector has metamorphosed from one (NITEL) to several telecommunication companies (AIRTEL, Globacom, Etisalat MTN etc.). Far reaching regulatory reform has led to hundreds of companies providing virtually all kinds of telecom and value-added services in an independently regulatory market (Oyeyinka-Oyelaran and Adeya 2002; Awoleye, Siyanbola and Oladipo 2008; Lange 2013; Wilson and Gapsiso 2014). Nigeria has Africa's largest mobile market, with more than 140 million subscribers and a penetration above 100% (BuddeComm 2015). These efforts have made Internet access available to millions of Nigerians who own mobile phones, yet there are still millions of Nigerians who neither have Internet access via their mobile phones or other access points. Since the Internet is largely an urban phenomenon, the growth is often urban-based. In semi-urban and rural areas the problem associated with access is even bleaker, where infrastructure is either old or non-existent. Surprisingly, these areas are home to a great majority of women and poor populations in Africa. The Internet as an urban phenomenon definitely leaves the greater part of the African society without access to the Internet. The disparity in Internet availability among communities in developing countries is real (Oso 2005).

Research Questions

To gain more insight into the Internet status with respect to access and use in Nigeria the following research questions were formulated to guide this study

- I. What are the Internet access centers among female undergraduates in University of Maiduguri?
- II. What problems (challenges) do female undergraduates in University of Maiduguri encounter in accessing and using the Internet?
- III. What do female students at the University of Maiduguri use the Internet for?
- IV. Do female students at the University of Maiduguri access and find women-related websites useful? (What gratification do they obtain from these sites)
- V. Do female students in university of Maiduguri post or contribute information/materials on the Internet? (Nature of Interaction with the web).

Methods

The paper used the survey research design. The questionnaire was used as a basic research instrument to generate quantitative data. The questionnaire contained both open- and closed-ended questions (17 structured questions), which were administered to 200 students selected from all the faculties of the University of Maiduguri. 198 were duly completed, returned, and found useable. The respondents were selected using purposive sampling techniques (selection based on the intent of the study, which was access and use of the Internet). The study selected female students who access and use the Internet through various available access points at the university. The generated data was analyzed, out of which different inferences were made in this paper.

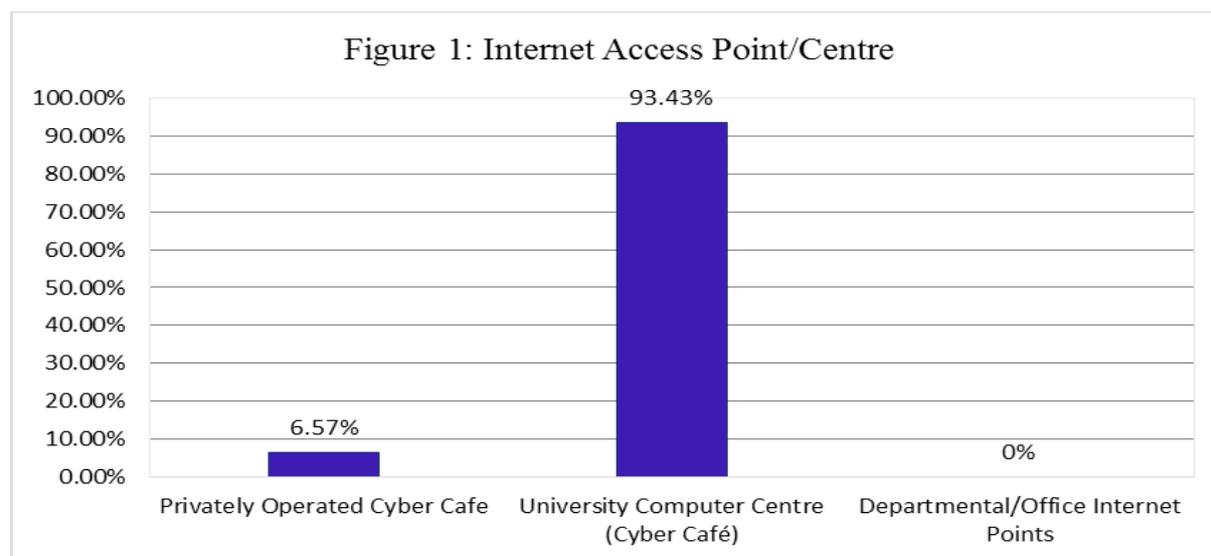
Findings

Most respondents fell within the age category of 18 to 30. This indicates that there are young women that fall within the most active age bracket for women. It is assumed that this age

bracket is the most enthusiastic in learning new things that concern women (health, education, business, marketing, relationship, women groups, etc.).

Internet Access Points/Centre

Respondents were asked to indicate their Internet access point or centre in the institution (where they have the opportunity to use Internet services) from the list of possible Internet access points. This includes privately operated Cyber Café, University Computer Centre (Cyber Café) and Departmental Internet centres. The result is shown in Figure 1.



The University Computer Centre (Cyber Café) had the highest score of 93.43%, followed by the privately operated Cyber Café with 6.57%. The departmental access points had zero. The highest service provider is the University Computer Centre (Cyber Café). This analysis indicates that majority of female students at the University of Maiduguri utilize the University Computer Centre Cyber Café as their major access point. This could be due to proximity and 24-hour service offered by the centre, which makes access to Internet facilities open throughout the day. The zero response recorded for Department/Offices is an indication that there is either limited connectivity in the various departments and offices in the university or the access points are not accessible to students. Effort has however been made by the university authority to extend Internet connectivity to Faculties and departments. For example, the Faculty of Science, Social Sciences, Management Sciences Ramat Library, Department of Mass Communication, Library Science, among others are connected to the Internet. There is also wireless Internet service.

Internet Access and Use Duration

Respondents were asked to specify how much time they spend using the Internet. Figure 2 shows the result.

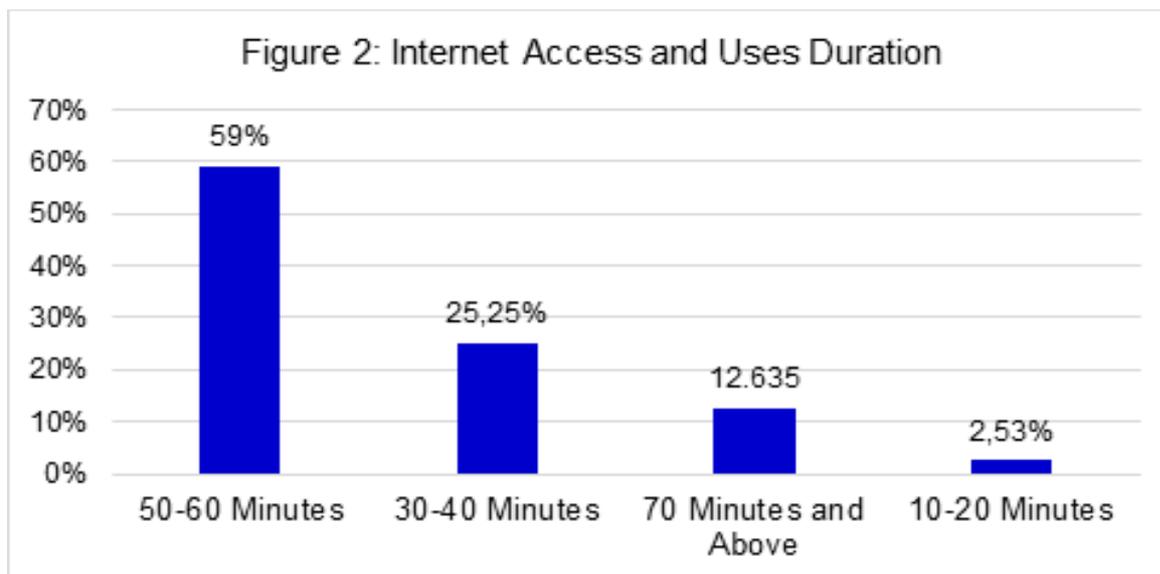


Figure 2 above shows that most respondents access and use the Internet for 50-60 minutes, representing 59%. By inference, the result implies that most female undergraduates at the University of Maiduguri spend between 50 to 60 minutes surfing when they visit the Cyber Café. It is followed by those who spend 30-40 minutes, with 25.25%. Those who spend 70 minutes and above had 12.635%. The 10-20 minutes category of user had the lowest count of 2.53%.

Problems (Challenges) of Internet Access and Use

Respondents were asked to indicate their Internet access/use problems, that is, the challenges they encounter in accessing and using the Internet: insufficient Internet skills/knowledge, financial constraints, and infrastructural constraints (slow and epileptic Internet facilities).

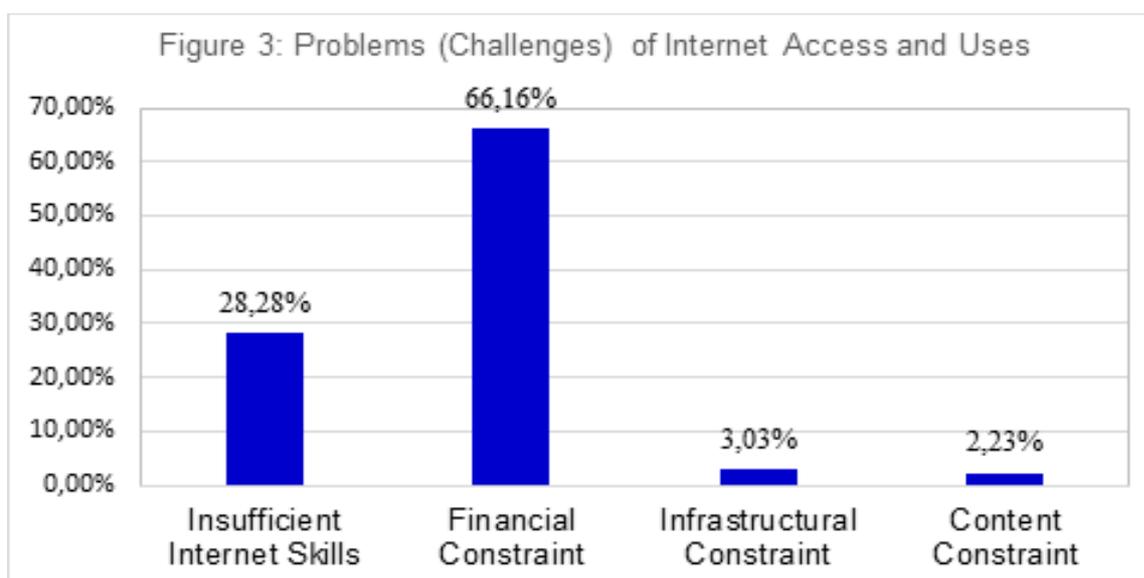


Figure 3 shows that financial constraint, representing 66.16%, is the most pressing problem of Internet access and use among female undergraduates at the University of Maiduguri. It could be attributed to their status as students. However, studies have shown that even in Western countries women see financial constraint as one of the barriers to Internet access and use (Fung, 2006). It is followed by insufficient Internet skills and knowledge, representing 28.28%. Infrastructural constraint had 3.03%. Content constraints had the lowest count of 2.23%, which indicates that Internet contents, although constituting a problem to Internet access and use, is not as much of a barrier as finance. This finding addresses one of the research questions that sought to identify the problems of Internet access and uses. The finding further identifies the most pressing problem.

Uses of Internet

Respondent were asked to indicate their specific uses of the Internet. Figure 4 shows the result: communication (e-mail, chatting, user/news group, bulletin board) research (information search, learning), entertainment (music, movies, games), publishing (bulletin board, books, articles, stories), and business (shopping).

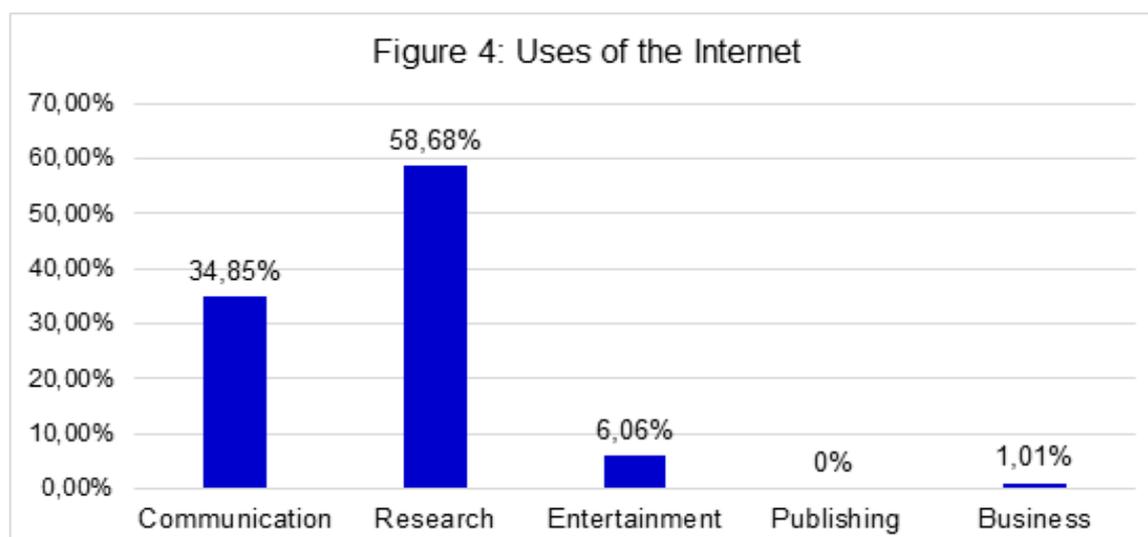
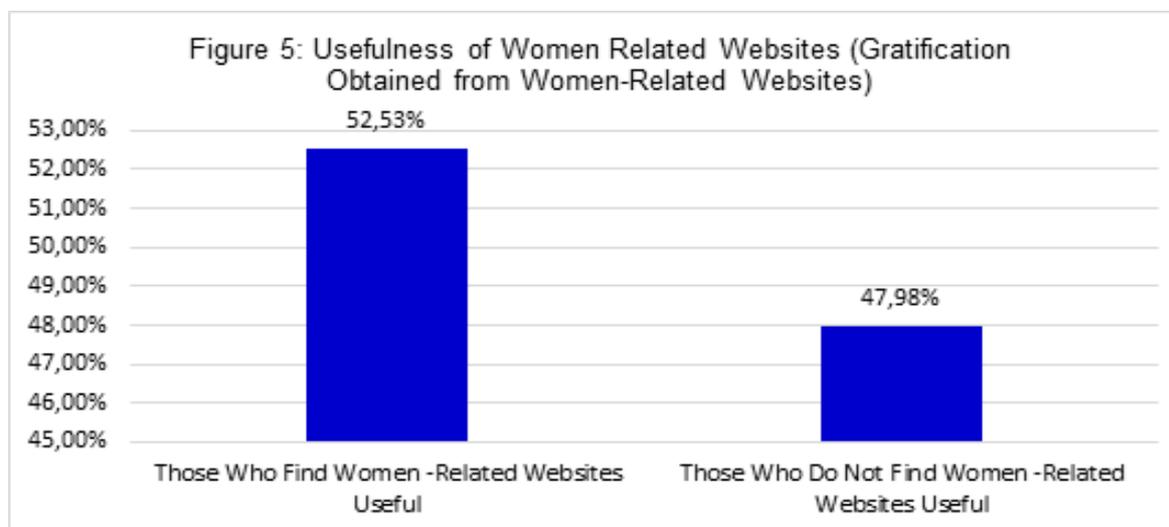


Figure 4 shows that most respondents representing 58.68% use the Internet for research (information search and learning). This is followed by communication with 34.85%. Business uses had 1.01%, and publishing had 0%. This answers the research question about what female students use the Internet for. This finding shows that there is a greater number of female undergraduates at the University of Maiduguri who use the Internet for research purposes (information search and learning).

This could be a result of the status of the study population as university undergraduates who have assignments and papers to write. Hence, they look for material on the Internet. This, however, reflects the trend in society where many women use the Internet for research purposes, seeking information and knowledge by women on areas of interests. For example, women NGOs in Nigeria use the Internet searching for sources of funding for their organizations from international agencies (Akanbi, Alhamdu & Mohammed 1995).

Usefulness of Women-Related Websites (Gratification Obtained from Women-Related Websites)

It was expected that in one way or the other the study population (female undergraduates) surf Internet sites that relate to women. Hence, respondents were asked to indicate whether they find women related websites useful. Figure 5 shows the results.



The percentage of female undergraduates who find women-related websites useful is 52.53% against 47.98% who do not find women-related websites useful. This answers the research question about whether female students access and find women-related websites useful. This is an indication that women-related websites, in spite of one of their major shortfalls being that they are largely irrelevant in content to women in developing nations, still appeal to this category of women (female undergraduates at the University of Maiduguri).

Posting/Contributing Information/Materials on the Internet (Interaction with the Web)

Considering the research questions that sought to determine whether female students at the University of Maiduguri contribute to the Internet or post materials on the Internet, respondents were asked to indicate whether they post/contribute information/materials on the Internet. Figure 6 shows the results.

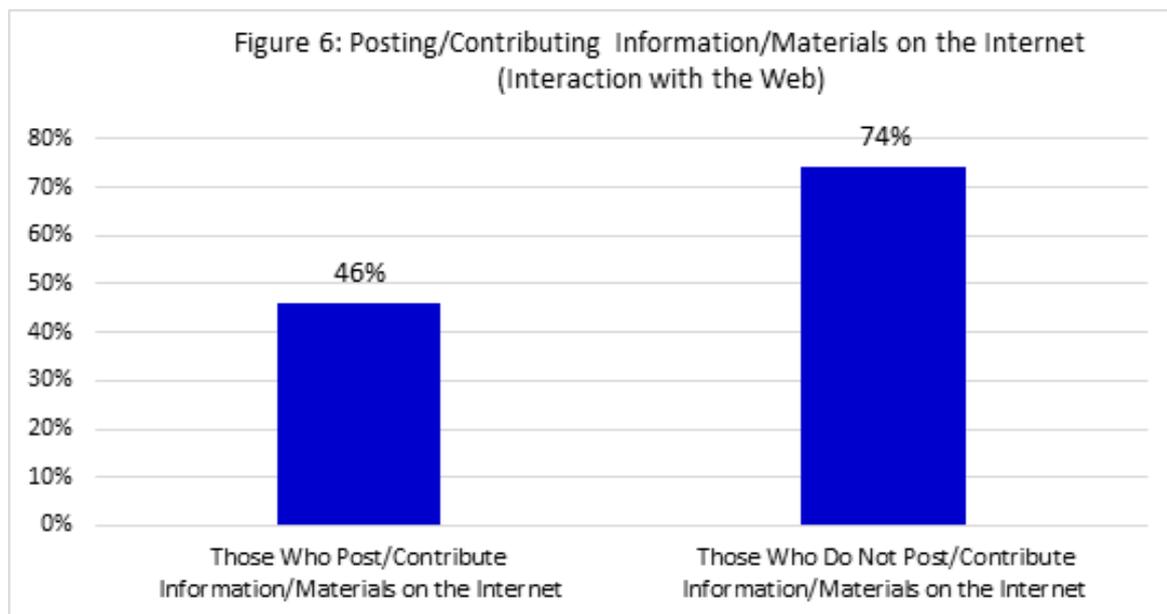


Figure 6 above shows that 74 % of respondents do not post or contribute materials or information on the Internet. This could be attributed to any of the problems highlighted earlier, including financial constraint, insufficient knowledge of the procedures for making such contributions, and lack of interest. The figure also shows that 26% contribute or post information on the Internet.

Discussion

Like other Internet users in most Nigerian universities and universities in African countries who rely heavily on the university computer centres and cyber cafés, this study found that the University of Maiduguri computer centre ranked first, with 93.43% among the access points. The department/office Internet points had no score (0%), which is a clear indication that respondents have no access to Internet facilities at departments/offices. This result strengthens the finding by Jagboro (2003) who notes that present low levels of Internet utilizations among university students in Nigeria is attributed to the low level of connectivity and the high cost of Internet facilities. He notes that there is a need for more Internet access points at departmental and faculty levels. Improving Internet access points will greatly reduce the pressure on the computer centres, which often results in overstretched facilities. Although recent development in mobile phone penetration in Nigeria has made access to the Internet through mobile phones easy, university students still rely on the university computer centres for serious Internet use, such as research because it is comparatively affordable. Time spent on the Internet is an important factor that is determined by availability of finance to pay for longer hours. The user's Internet skill also counts. The more Internet manipulation skill, the more time a person spends. The less Internet manipulation skill, the less time spent on the Internet. This study revealed most respondents access and use the Internet for 50-60 minutes, representing 59%, which is slightly higher than those who spend 70 minutes and above, which had a representation of 12.635%. The major reason in this case was financial constraint. Not many female undergraduates would want to spend more than one hour at the

university Internet café, especially when they use Internet for things other than research. Other less intensive Internet uses such as chatting and social networking are done using mobile Internet devices.

The study revealed that financial constraint (66.16%) is the major challenge to Internet access and use, followed by insufficient Internet skills and knowledge (28.28%). These problems, according to Jagboro (2003), are not limited to female undergraduates in Nigerian universities; rather, they are global constraints to women Internet users. Kole (2001) points out that women's ability to be actively involved in Internet use is troubled by the financial costs connected to Internet, especially in developing countries where a greater number of women are not involved in paid employment. In this study, the financial constraint is so overwhelming that content constraints had the lowest score of 2.23%. This falls in place with the common notion among Internet users that if one does not have enough surfing time, it is impossible to make much sense of the Internet materials. Money is required to pay for more surfing time.

The study further revealed that the use of the Internet for research had the highest score of 58.68%. This is an indication that most respondents use the Internet for research. This is in line with the trend in most universities and reflects Internet use among women generally, especially in the developed world. This finding supports the observation by Morahan–Martin (1998) who notes that women use the Internet more for research (information gathering) than for fun or entertainment. More than half of online women log on to the Internet primarily to search and gather information or do research. They go online to seek solutions to problems or tips that will make their lives easier.

The use of Internet for publishing (posting of information e.g. seminar paper, literary works, visual art work, etc.) had the lowest score of 0% which indicates that Internet publishing is not common among the respondents. This could be due to insufficient Internet publishing skills/knowledge or financial constraint. This finding also brings to light the uses and gratification theory that perceives the audience as active and chooses to attend to or use the media on the basis of their needs. Interaction with the Internet is explained by respondents' use of the Internet for research and other purposes. Blumler and Katz (1974) note that people's needs play a part in leading them into different patterns of media exposure. This finding is in line with what McQuail (1987) notes as the common reasons for media use, which includes information (finding out about relevant events and conditions), learning (self-education, gaining sense of security through knowledge), personal identity (finding reinforcement for personal value), integration/social interaction, and entertainment.

On the issues of women's websites, 52.53% of the respondents find women-related websites useful, while 47.48% do not find the sites useful. That is to say a greater percentage find the women websites useful. This finding corroborates the observation by Smith and Balka (2005) and Dillman (1985) that the Internet provides women an opportunity to learn and share significant information on all issues, and every online woman has several useful issues to learn, especially from sites operated by women organizations. Mutume (1993) notes that while the issue of relevance of content, especially in developing nations, still lingers, women who use the Internet derive a lot of benefits from the useful information and tips on health, beauty, business, jobs, and several other issues.

Finally, the findings showed that most of the respondents do not post/contribute information/materials on the Internet. Tashiwa (2005) notes that most Internet users in developing countries are "downloaders" and very few "upload" to the Internet. This is however changing with the growth of social media. The most popular and dynamically

developing social media in Nigeria is Facebook. With only over 1 million users in early 2010 and over 4 million users in October 2011 (Fink et al. 2012: 165), currently some 11 million Nigerians on Facebook represent the largest group in sub-Saharan Africa. The 2012 #Occupy-Nigeria Protests and the 2013 #Bring-BackOurGirls campaign has brought Nigeria, the continent's third largest country on Twitter to the centre of international attention and further propelled online activism (Valenzuela et al 2014: 5). Social networking sites (Facebook, Instagram, etc.) now afford many users, including women, the opportunity to post information easily.

Conclusion

The study has shown the status of Internet access and use among female undergraduates at the University of Maiduguri. It showed that the university cyber café plays a vital role in the provision of Internet services to users, especially in the university environment. It revealed that in spite of the issue of finance posing a major challenge to Internet access and use, female undergraduates still spend time using the Internet, mostly for research purposes, and they find the women-related websites useful. A greater percentage of the respondents, however, do not contribute information or materials on the Internet.

The cause of women as pursued by women organizations worldwide would be highly enhanced if women organizations concentrated on improving the present level of Internet access and use among this important category of women (female undergraduates in Nigerian universities) who have the educational capability and Internet potential to effectively pursue the realization of the cause of women in Nigeria and worldwide. "Catch them young" is a solution to the effective pursuit of the cause of women, especially in this age of information technology. This is possible only when the challenges identified are addressed.

Recommendations

Considering the findings of the study, the following recommendations are therefore put forward for policy and practice:

- The University of Maiduguri's computer centre cyber café is the major Internet access point to female undergraduate, thus the managers should ensure that standards in terms of facilities and other services are maintained.
- The University management should subsidize the cost of Internet surfing time for students.
- Women organizations such as University Women Association, Association of Women Lecturers in Universities, among others should organize education of female undergraduates to improve their Internet skills/knowledge and to enable them to harness the enormous benefits of the Internet. These organizations should also establish Internet cafes for cheaper access for female students.

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