

GIRLS AND ICTS ORIENTATION

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Abstract

Female illiteracy, especially in the area of Information and Communication Technologies (ICT), has been identified by several scholars as a major social problem in developing countries such as Nigeria. This situation has caught the attention of various governmental and non-governmental organizations such as UNESCO, UNICEF and concerned parents and individuals. The interventions and support brought in by these organizations and individuals have been of immense help as parents now see the need to allow their girl-child exposure to education, especially in the rural areas. However, the access, acquisition and expertise of the girl-child in the area of ICT are still limited. This paper, therefore, intends to look at this problem from the perspective of the Nigerian parent, a representative of government, a representative of an NGO working in this area, teachers in all facets of education, a sociologist and a psychologist. The worry of parents not wanting to expose their children, particularly girl children, to TV (foreign media fare), and in particular the Internet (over which they have no control), because of their supposed corrupting influences will also be examined. Incidentally, ICT promises to increase the girl-child's access to quality education and quality development in a world that is fast becoming digital. Lack of exposure to or inadequate knowledge of ICT would not stand the girl-child in a good stead to compete favorably with her boy-child counterpart in an economy that is dominated by science and technology. This paper would also look at the strategies that have been put in place to checkmate child-online abuse which has become a major concern for parents and regulatory frameworks, regarding girl-child's use of the internet and the benefits of ICT on the girl-child development; it would also serve to enlighten parents on the opportunities their girls stand to get when they become ICT savvy. The challenges to curricular designers are to fashion a mechanism for counter-balancing the threat to cultural values with the overwhelming advantages of ICT; and to convince parents that the benefits of the ICT far outweigh the fears of cultural pollution. A Focus Group Discussion (FGD) involving parents, NGOs working in this area and teachers in post primary and tertiary institutions will be the pivot around which the study will revolve.

Keywords: Information and Communication Technology, Orientation.

1 INTRODUCTION

Without a doubt, Information and Communication Technology (ICT) has affected everyone in the world one way or another. Its influence has changed the daily lifestyle of many individuals, from the young to the old [1]. Unfortunately, the girl child seems to have been relegated to the background. Studies have shown that ICT has proved to be central to the socio-economic development of any nation. This tool, [2] can provide women access to quality education, skill acquisition, expertise and even lifelong learning to be relevant in any field of interest. Parents forbidding their girls access to these tools because of their supposed corrupting influences deprive themselves and their girls of not only their financial benefits and exposure but also limit their potentials for improved productivity, slow down the nation's growth and the chance to compete favorably with her boy-child counterpart in an economy that is fast becoming digital.

1.1 Information and Communication Technology (ICT)

Information and Communication Technology in Nigeria is becoming a household name, used in offices, cafes and homes to access, use, receive and retrieve information [3]. In the same way, the authors acknowledged that many innovations in the world today are as a result of the exposure and access to the world of the ICTs. ICTs are not all about computer, the Internet or telephones, rather, they are about education. Information is valuable to people's day-to-day activities [4]. One clear cause of rural under development can be blamed on "information poverty" – the lack of access to quality and timely information and knowledge that could improve the individuals and their society. It is, therefore, important that as more and more information is moving online, it is critical that the girl-child also has equal, safe, and reliable access to computers and the internet. Without access to computers, the

internet, and technology training, girls and women will continue to be excluded from many opportunities for social and economic leadership.

ICT is generally seen as an instrument for advancement and empowerment in the world. Information and Communication Technology is defined as a generic name used to refer to a number of communication hardware adopted in ensuring instantaneous dissemination of information and social values across the globe [5]. It is also a disparate set of communication technology that shares that digitization made possible and is widely being made available for personal use as communication device. He further explains that the essential features of the ICTs lie in their interconnectedness, accessibility interactivity, multiplicity of use, and ubiquity.

More NGOs, concerned parents, individuals and organizations in Nigeria need to join hands with organizations such as UNESCO, UNICEF, and MDGs to bring in more support and intervention for these children. The report on e-debate presented [6] on the International Communication Union (ITU) launch of the "Girls in ICT Day" in 2011 to celebrate girls' interests and strengths in Information and Communication Technologies (ICTs), and to encourage them to choose a career in this area is still being celebrated on the 4th Thursday in April of every year, through different events organized globally. For instance, in Nigeria, as part of the activities to mark the 2015 ICT for Girls Day in Nigeria, [7] reported that the Women In Technology In Nigeria (WITIN), in conjunction with other stakeholders stressed the importance of the girl-child in the nation's ICT development. The association noted specifically that there was a growing gap between ICT adoption by girls and their male counterparts that must be bridged in order to create more empowerment in the country.

1.1.1 Cultural Imperialism

An excerpt [8] proposes that the problem of the poor countries with particular reference to Nigeria is not the technological knowhow but that they have been subjected to exploitation by the western culture. Cultural imperialism is imposing an external culture upon another culture against it will [9]. For example, the developed countries using their advanced and well-developed mass media to control behaviours, lifestyles, morals, arts, values, etc, of the under developed countries [10].

Nigeria, with its rich and diverse cultural values is beginning to lose most its cultural ideals especially through the adoption of foreign culture showcased through the mass media. This puts fear in the mind of parents and wards of this girls that if they allowed their children to get too involved in ICT, education which most see as a western thing, it would expose their girls to this seemingly evil that comes with the exposure to a world over flogged by all kinds of information that are or may be contrary to what they know and were even thought as children.

1.1.2 Girls and ICT: Challenges

The challenges that the girl-child faces in ICT utilization is a global phenomenon but it is more obvious in Nigeria being among the developing countries. As a result of Africa's numerous problems such as poverty, high level of illiteracy, etc., ICT tops the list. The report points out a few challenges [6]:

- 1 **Mindset/stereotype:** Over time, it has been imprinted on the minds of these young girls that smart and hard work is only for men. Cultural and societal restrictions on the girl child are a big barrier for women and girls to access ICTs.
- 2 **Infrastructure and access:** From the study of [4], lack of infrastructures, gadgets and access to ICT in the rural areas is frustrating. Those who by any chance have access through the mobile phones cannot charge their phones because electricity supply is also a major challenge. Others do not have these gadgets because their parents forbid them from using them as they are seen as 'evil'. Those that have their liberty to use them cannot afford them. The few available infrastructures are concentrated in the urban areas. The success for the utilization of any ICT rests in the availability of the infrastructure that is set up in the environment where the facility is needed.
- 3 **Gender role:** Girls' low level of literacy and education, as compared to their male counterparts, and the negative attitude towards girls' achievement in science and technology also contribute to the gender dimension of the digital divide [6].
- 4 **Education and skills:** This is still a major challenge in Nigeria. The girl-child is less likely than her male counterpart to have the required education and knowledge. The girls are also less likely to know the international languages that dominate the web given their limited access to schooling. Conversely, therefore, it can be said that their computer skills will be on the side, too.

2 METHOD OF DATA GATHERING

2.1 Data Used

The data on which this report is based are the results of different surveys carried out in different parts of the country. A Non-Governmental Organization, Women In Technology In Nigeria (WITIN) conducted surveys in the six geopolitical out all regions of the country on women's exposure to and usage of the Internet in Nigeria while the first and third authors, in conjunction with Stella Aririguzoh of Covenant University, Ota, Ogun State of Nigeria, carried out in 13 communities of Ado-Odo Ota local government. This community is hosts three universities and a number of other post-secondary educational institutions. The study focused on the awareness, exposure to and usage of the Internet among the residents in the 13 communities.

3 RESULTS

3.1 Limited Access to ICT Infrastructure and Applications

Though studies show more than 80% of women are interested in ICT, only 60.67% have access to it. Girls particularly are constrained by time; gender roles; need for work-life balance and many of them are not adequately trained or empowered in the use of ICT facilities. This fact is fast assuming a signifier of the gender gap in places like Nigeria, where women, particularly girl children, have restricted access to ICT resources and opportunities. Gender disparity can be easily observed in the ownership of, access to and use of mobile phones in the rural areas where more girls, unlike the boys, reside and where access to ICT facilities and applications such as e-mail are limited and less used [16].

Electricity supply remains a major barrier to the full participation of Nigerian women in ICT. The electrical infrastructure to power and keep ICT technology working; upgrade and maintain ICT facilities like the Internet requires huge investments in equipment, training, maintenance, outreach and network access. Power outage, server breakdown, repairs and congestions are critical challenges even in urban Nigeria. The challenges are worse for women because most of them only have access to these facilities in government organizations, their offices and cheap business centers.

As earlier noted, level and participation in Information and Communication Technology is generally low in developing countries, with less than 1% of the populations having access to the Internet. In Nigeria, as in most African countries, estimate of female Internet use as a percentage of total use is less than 25%. Also, unlike 89.4% of Chinese females who had access to the Internet at home, only 25.2% of their Nigerian counterparts claim to have access [11]. In terms of the duration of use, 45.4% of the Nigerian respondents do not have access to the Internet at all, while 43.6% of them have access for less than 5 hours in a week. Majority of their Chinese counterparts (47.0%), have access to the Internet for over 13 hours in a week. Some 14.6% have access from 10 to 13 hours and 13.9% from 2 to 5 hours; the same percentage also have access from 6 to 9 hours. Only 4.6% do not have access to the Internet at all. The high technological growth and better economy of China contribute majorly to this great divide. Also noted is that only few Nigerian girls have access to the Internet at home, majority have access to the Internet at cafes; and in some rural areas none at all.

The ITU World Telecommunication/ICT Indicators database shows the gender gap is more pronounced in developing nations, where 16% fewer women than the men use the internet, compared to only 2% fewer women than the men in the developed world. Even among academics, [12] in his study on ICT and gender use notes that video-conferencing and tele-conferencing facilities are not popular among women academics as 71.2% and 82.9% respectively indicate not using them. Women academics, 97.1%, believe there is unequal access to ICT facilities, while only 2.9% respondents say there is equality of access. This study further establishes that there is gender imbalance in the use of ICTs in the surveyed universities.

3.2 Need for girl's specific ICT training and computer literacy programmes

The need for training programmes for women and enlightenment seminars for working class females to ensure full participation of women in ICT activities is a major concern. The revised National Policy on Education introduces Information and Communication Technology (ICT) into the Nigerian school system, but the qualitative data analysis show that out of some 200 females, 60.67% indicate they are conversant with one form of ICT facility or the other, while 39.33% are not literate in ICT at all. The

lack of relevant content, low education and literacy among women could be responsible for the high female illiteracy in ICT.

Nigeria recognizes that the importance of ICT to transmit and disseminate information for development, yet the International Development Research Centre (IDRC) notes that “most of the positive effects of the information revolution have bypassed women” in the country. Though little research has been done on women’s information needs and access to appropriate information in developing countries, the “information highway” is still predominantly male-oriented. The profound gender implications of disparate ICT application for both men and women in employment, education, training and other productive sectors as well as personal development areas of life mean that women need encouragement and support to take their place in the ICT revolution because the concentration of women in clerical ICT works has been seen not to influence their further competence up the ICT ladder[13].

3.3 Time constraints

Women’s time is a critical resource in short supply. About 72.5% females indicate that they would like to go for training to be computer literate while another 68.00% females indicate that they have interest in operating the computer but time is a constraint. Nigerian and Chinese women agree on the issue of time as a major barrier to full participation of women in ICT. Women’s multiple roles and responsibilities limit the time available for use on ICT facilities. In the rural households, [14] notes heavy daily workload for women, leaving them with hardly the spare time to become familiar with new technologies. Most communications facilities in rural areas are public assets and women with their multiple roles and heavy domestic responsibilities are constrained from visiting the facilities [12]. The ICT centers are usually not open when women can use them, or may be opened in the evenings, when it would be problematic for women to use the centers and return safely home in the dark.

3.4 Technophobia and ICT kills handicap

Women’s participation in science and technology training is marginal in developing countries. The report of United Nations Development Programme (UNDP 1999) shows that men dominate information technology globally. As at 1998, 27% of the internet users globally were women most of whom were based in the developed countries and 58.00% females said they could not access their e-mail without assistance. Unlike in places like China where 92.7% of women have the ability to operate computers without assistance, in Nigeria only 64.7% are able to operate computers without assistance. While most Nigerian women use the computer for single purpose, only 15.1% employ it for two combined uses while 0.8% use it for three combined functions. The case is different in China where 31% apply the computer for at least five combined purposes. Mobile phones are the only ICT tool that 48.7% of women use and only 20.2% of them do Internet browsing [12]. This fact shows a dismal technological environment for ICT use by the girl child in Nigeria. Though many women learn to use computer through formal training courses, only 33.8% of Chinese women need formal training as against the 45.4% of Nigerian women; this is because personal interest of the Chinese women stands at 33.8% while only 26.9% of Nigerian women have the personal interest to learn how to use the computer. This is not unrelated to Nigerian women’s reluctance to overcome their technophobia. Over 7.% of the women interviewed strongly disagree with the claim that fewer women study and use ICT, while 21.5% of the respondents disagree. Some 3.75% are neutral and as many as 40% agree while another 27.5% strongly agree.

Women academics observe their little use of the ICT facilities for writing computer programmes, playing games, scanning documents and doing e-commerce [12]. Ninety nine per cent of the female academics interviewed say most women are “ICTphobic” and that “women academics seem more reluctant than men to use the ICT.” The fact that fewer girls, compared to boys enroll for studies in science, mathematics and technology related courses at tertiary institutions shows that the gender stereotype divide affects the girl child’s attitude to science related careers.

3.5 Women interests not well factored into national ICT policy

Only 5.5% of senior government officials responsible for ICT policies in the developing countries are women. This has serious consequences, not only for the women who are “missing the educational and economic opportunities that are falling into the laps of computer-savvy young men”. The lack of career progression for women, particularly in positions of senior responsibility from the UK, Greece, Malaysia and China can be traced to ICT expertise. Their findings reveal that gender and cultural issues could

not be ignored while addressing girl child participation in ICT use, though this problem may not be peculiar to Nigeria.

ICT as a possible tool for women's economic empowerment can be used to develop creative solutions to promote and facilitate the technology they feel most comfortable with. The United Nations in its concern for gender equality and the empowerment of women insists that gender-based inequalities in decision-making influence persists, adding that gender discrepancies are obvious at the secondary education level, placing girls at a disadvantage to boys in sub-Saharan Africa. Many women, 47.5% of their population believe gender inclusiveness in ICT policy making would improve with time [15]. Since it is the responsibility of policy makers to ensure technology works for the people and in many cases, this requires a gradual transition in ICT usage. Women's inadequate involvement in ICT policy making keeps focus on the peculiar gender issues affecting the girl child's ICT orientation at bay.

ICT and its content are designed by men, mostly in the English language, and do not often reflect the interests, concerns, perspectives and information needs of women in the developing world.

3.6 Financial constraints

Many women/girls do not have the money for and cannot afford personal computers. While 90.7% of Chinese women own their personal computers, only 43.7% of the Nigerian women do. This is not unconnected to economic bases of the countries. The uptake of personal computers in Nigeria is low, and has been put at just under 2% as compared to other developing nations such as the Philippines with 8.9% and Vietnam with 7.8%" [12]. The availability of personal computers has been central to the growth of the Internet in recent years.

In rural Nigeria, ICT has acquired a social status that tends to emphasize existing gender inequalities. The attitude of the rural male keeping the transistor radio as a status symbol and making purchase of batteries for the radio a priority over household necessities is seen in ownership and use of mobile phones by rural men. The issue of affordability of ICT facility has to be understood in the context of the women's household budgets. Some women complain their husbands would rather spend money to buy top-up credits for their mobile phones than give such money for household expenses [14].

Most rural women are unable to engage in meaningful conversations on their phones because they could not afford such calls. Women would rather give preference to their family roles and needs over and above their use of ICT facility. Ownership and use of mobile phones entail high costs that make accessibility difficult. The technology can cause conflict in families when a spouse spends money on the cell phone even when there are other urgent household needs.

Because many women are not economically independent, have lesser access to finance and since men control the household budget in many families, fewer females and girl children have the financial resources to acquire ICT tools and facilities.

3.7 Language barrier

Though mobile phones, like other ICT facilities have been meeting some of the women's communication needs, they are not meeting their information needs. For example, the SMS feature that makes mobile phones affordable is hardly used by many rural women, owing to their low literacy capacities and the cultural preference for verbal communication. The ownership of mobile phones without the ability or opportunity to use the SMS option in their own languages makes the technology largely inaccessible and expensive for the illiterate rural women of northern Nigeria [16].

Also, because the information on the Internet comes in languages other than most girl children's native languages, their ability to use the facilities remain hampered, unless they have sufficient formal education.

3.8 Beliefs and cultural factors:

Culture and popular beliefs seem to be a barrier to the participation of women in China, irrespective of technological advancement, as only 23.2% totally disagree that they are not affected by culture related factors. For example, the opinions of women on these gender sensitive beliefs are instructive:

- "Operating a computer is quite complicated". Only 13.2% of the Chinese women agree and 76.5% disagree to this fact, while 52.1% of the Nigerian respondents agree. "You need to receive special training to use the computer"; more Nigerian women (71.4%) than Chinese

(43.7%) believe this. A few Chinese women (6.6%) and Nigerian women (11.7%) agree that “A woman does not need to be Computer literate” and 36% of Nigerian women agree “The place of the woman is in the kitchen”.

Culturally, males can go to cyber cafes at night, a time when most 'dutiful wives are supposed to be at home' because patriarchal societies, and socio-cultural barriers perpetuate the gender inequality, [15]. In northern Nigeria, there are purdah constraints and strong gender roles regulating the activities and affairs of women. In Nigeria, ICT content, particularly from the western countries, “import evil” into households and, therefore, believe that girls' exposure to ICT facilities must be controlled to regulate and guide against their corruptive influences. ICT adoption and use are not gender neutral in such environments. The predominantly male held outmoded opinion that mathematics, science and technology subjects are too mechanical and technical for females, is a point in view. This discourages female students from enrolling in technical courses.

Socio-cultural and religious customs such as restrictions on travel by women and girls, restrictions on interactions with members of the opposite sex, and misconceptions about the ability of females to understand and manipulate technology all contribute to reducing women's use of ICT. Even where women are present in public access centers and the workplace, gendered patterns of behavior and interaction such as harassment, belittlement of women's abilities, and the prevalence of pornography at cyber-café militate against use by women.

4 SUGGESTIONS

- 1 New ICTs should be integrated in all policies, in such a way that it respects both the participation and the protection of the girl-child
- 2 Girl's empowerment educationally will help them strengthen their individual and collective capacity and also give them the opportunities that ICT offers.
- 3 There is a need to increase the literacy rates, to accelerate girls' empowerment.
- 4 Give rural girls the chance to innovate with new ICT tools: support small projects over the long-term via a participatory approach.
- 5 Attitudinal change towards ICT usage is important.

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