

Influence of ICTs on the Information Behavior of the Elderly in Nigeria

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ABSTRACT

The uptake of ICTs by the elderly to fulfil their diverse information needs is ridden with unavoidable challenges militating against their full exploitation of these technologies. In view of this, this paper examined the influence of ICTs on the information behaviour of the elderly in Nigeria. The methodology adopted for this research work was purely documentary and literature search in determining the extent of the influence of ICTs on the information behaviour of the elderly in Nigeria. Specifically, the research objectives for this paper addressed the Information needs of the elderly; sources of Information frequently consulted by the elderly; types of ICTs often used by the elderly; factors challenging the elderly in meeting their information needs, seeking and use using ICTs. Findings revealed that the information needs of the elderly are diverse, differ from person to person. The elderly was equally faced with personal challenges such as old age syndromes covering anxieties, disabilities, nervousness, and lack of good eyesight that affected their ICT usage.

KEYWORDS

Elderly, ICTs, Information Behaviour, Information Needs, Information Sources Technology

INTRODUCTION

The growth of information and communications technologies is transforming the individual, economic and social development all over the world. New Information and Communication tools are making people, industries and institutions more productive by enhancing skills and learning, improve processes and deliveries at all levels, and making it easier for services to be accessed both by the young and the old. ICT is a generic name used to describe a range of technologies for gathering, storing, retrieving, processing, analysing, and transmitting information. These include common technological hardware such as cell phones, personal computers and virtual technology such as the Internet, or other software applications.

Since the early 1980s, information and communication technologies (ICTs) have improved the way people access information irrespective of distance or geographical location across various age groups. ICTs have enabled people find, explore, analyze, exchange, and present information irrespective of location. It has also provided opportunities cutting across age range, sex, culture, race, physical impairment, and even educational background without discrimination. In spite of the benefits of ICTs, the uptake of Information and Communication Technologies (ICT) by everyone irrespective

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of age comes with numerous challenges that people especially the elderly must successfully cope with in realizing fully the dividends of ICTs.

Social gerontologists have classified 'the elderly' into three groups: the 'young old', aged between 60 and 75; the 'old old', aged between 75 and 85; the 'very old', those aged over 85". The elderly in the context of this research are those between 60 years and 85 years (Older & Bolder, 2012). The elderly people most especially, find it most challenging to cope with the use of various ICT tools due to their conservative nature and rigidity towards novel ideas. Therefore, the elderly are faced with the challenge of surviving as well as contributing actively in an ever-changing society. This implies that the elderly will need to acquire ICT tools to participate fully as active citizens of their countries and most importantly, learn to use these technologies in formal and informal settings.

Besides, ICT use has also influenced the information behavior of the elderly due to meeting their diverse needs and also accessing several sources and channels of information. In this paper, information behavior would be analyzed based on elderly people's information needs, information seeking, and sources of information consulted by the elderly. Information behavior has been defined by Wilson (2000) "as purposive seeking of information as a consequence of a need to satisfy some goals".

In view of the opportunities and challenges faced by the elderly in the use of ICTs, the main objective of this research paper is to conduct a documentary search on the influence of ICTs on the information behavior of the elderly people in Nigeria. This paper will also focus on relevant theories on information behavior and ICT use by the elderly. It would further delve on the challenges the elderly face in meeting their diverse information needs, seeking behaviour and the use of ICT. The various sources of Information frequently consulted by the elderly; and types of ICTs often used by the elderly would be discussed. Lastly, policy recommendations would be to improve the elderly people's use of ICTs in Nigeria.

REVIEW OF LITERATURE

Relevant and appropriate theories relating to elderly people's way of life, pattern of living, information needs, seeking behavior and use of technology were reviewed. These theories are Disengagement Theory, Need Fulfillment Theory and Unified Theory of Acceptance and Use of Technology (UTAUT) respectively.

Disengagement Theory

The Disengagement Theory was propounded by Cummings and Henry in 1961. The theory opined that withdrawing from society and social relationships is a natural part of growing old. The theory premised on the fact that because everyone expects to die one day, and because we experience physical and mental decline as we approach death, it is natural to withdraw from individuals and society. As the elderly withdraw, they receive less reinforcement to conform to social norms and societal changes (Cummings & Henry 1961). However, critics of this theory opined that the theory does not allow for a wide variation in the way people experience aging having focused on the idea that the elderly universally naturally withdraw from society as they age. (Hothschild 1975).

Need Fulfilment Theory

Need Fulfilment Theory was propounded by Abraham Maslow in (1943). He was the first to identify that human needs are hierarchical through the design of a five-stage model which is expressed in form of a pyramid with the more basic needs at the bottom. The five stages from bottom are Physiological, Safety, Belongingness and Love, Esteem, Self-Actualization and Self-Transcendence needs. Although Maslow doesn't specifically address old age, it is clear that hierarchy of Needs help to explain how these needs motivate the elderly in meeting their diverse needs. Maslow's Hierarchy of Needs state that we must satisfy each need in turn, starting with the first which is Physiological, which deals with the most obvious needs for survival itself. Only when the lower order needs of physical and

emotional well-being are satisfied are we concerned with the higher order needs of influence and personal development. In other words, elderly people are motivated to fulfil their lower order needs for survival and sustenance before meeting their higher order needs.

Unified Theory of Acceptance and Use of Technology (UTAUT)

Unified Theory of Acceptance and Use of Technology (UTAUT) is a unified view of earlier theories on systems usage behaviour and technology acceptance model (TAM) that was initially developed by Davies (1989). Venkatesh et. al, (2003) propounded this model which aims to explain users' intention to use a new information system and their usage behaviour. According to this theory, four constructs which are performance expectancy, effort expectancy, social influence and facilitating conditions are determinants of users' intention and usage behaviour. Apart from the four major constructs, other moderating variables such as gender, age, experience and voluntariness influence the outcome of the four constructs on users' intention and usage behaviour. In relation to elderly people's use of Information and Communication Technologies (ICTs), the relevance of this model is of paramount interest due to individual differences in elderly people's intention to use technology and their actual use of the technology. The intentions of the elderly to use technology coupled with their individual usage behaviour can be determined by any of the four major constructs. Performance expectancy has to do with individual beliefs that using technology will be beneficial to living an independent life. Effort expectancy, on the other hand is the degree of ease associated with the use of technology by the elderly; while social influence relates to societal expectations on the importance and use of technology by the elderly. And lastly, facilitating condition is the extent to which infrastructural development support and contributes to the elderly people's drive to use technology. However, the four moderating variables which include gender, age, experience and voluntariness will moderate the impact of each of the four constructs on elderly people's intention and technology usage.

Information Needs and Seeking Behaviour of Elderly People

Information is critical to the survival and sustenance of the elderly especially in this information age. Therefore, access to quality information is essential in making informed decisions, participate in a range of activities and represent their interest in the community and the larger society (Dunning, 2005). Despite the proliferation of information in the information age, access to information remains a key challenge to the continual well-being of the elderly in our society. It is a known fact that if older people are to age well and participate fully as active citizens in their various communities, they need to be well informed (WHO, 2007).

Human needs generally can be classified into physiological, cognitive and affective needs, therefore, in the satisfaction of any of these needs an individual will engage in information seeking behaviour (Wilson, 1981). In view of this, elderly people's information needs are diverse and context dependent based on their prioritized individual needs. (Older & Bolder, 2012). Research findings from the literature have revealed that needs of the elderly are viewed from different dimensions such as health, income and finance, benefits and entitlements, recreation and leisure, services in the home and community as well as housing and accommodation (Tinker 1993; Williamson, 1998 & Barrett, 2000). Also, needs on who to contact and how to access information in the area of services for the elderly are inclusive (Barrett, 2000).

Critical assessment of elderly people's needs as identified in the literature are more of physiological needs that are tailored toward the need for food, shelter, clothing, housing and health for the elderly; especially for the retirees that are totally or partially dependent on their children and relatives to make a living. In a bid to satisfying their diverse needs, elderly people consider it essential to access information especially at transition periods such as reaching retirement age, becoming functionally disabled, developing sudden sickness, needing a long-term care, bereavement among others. Therefore, significant transitions experienced by the elderly require the availability of timely, accessible and accurate information to take informed decisions on their personal lives (Ruddle, 2002).

These transition periods influence the information seeking behaviour of the elderly in the sense that it determines the sources and channels of information consulted, and accessed by the elderly in meeting their diverse needs (Ruddle, 2002). The elderly information needs and seeking behaviour are diverse and most times are determined by their own circumstances and experiences such as personal characteristics, values, socio-economic conditions, lifestyle and the physical environment (Older & Bolder, 2012). It is worthy to note that the elderly are not a homogenous group; therefore there is diversity in their information needs, sources and information seeking behaviour (Older and Bolder, 2012). The information behaviour of the elderly people differs from person to person depending on personal, situational and environmental conditions.

In the context of Nigeria, elderly people's information needs and seeking behaviour are not totally different from what obtains in the developed world except in the area of environmental differences and low consideration given to the satisfaction of the elderly people's needs and seeking behaviour.

Sources of Information for the Elderly

In terms of sources of information consulted by the elderly, the literature has revealed quite a number of sources. Family members and friends are the first point of contact in accessing information by the elderly, followed by newspaper and television (Goodman, 1992; Wicks, 2004). Elderly are much concerned with the informal sources of information rather than formal sources that is why libraries are the least consulted because it requires time and effort on the part of the elderly (Older & Bolder, 2012).

Elderly people prefer 'word of mouth' information sources in maintaining social contact and ensuring social inclusion (Older & Bolder, 2012). Research by Epstein (1981) revealed "that elderly people with specific problems make use of written material and leaflets presented at an appropriate time". Tester and Meredith (1987) expressed reservations about the value of leaflets for elderly people. They discovered in their study that leaflets in particular, are considered by elderly people to be unhelpful, irrelevant to solving their problems. This is due to the difficulty in comprehending the information, and at times, it may not be relevant to their own circumstances, and therefore, misleading.

Another important source of information to the elderly is the Telephone services. Telephones are useful to elderly people especially those with visual problems and those that cannot read and write in the rural areas (Hinkley 1992). Many elderly people see telephone as an important and acceptable medium of information exchange. Apart from telephone services, elderly people are also more conversant with ICTs such as Television and radio due to the familiarity and convenience attached to these technologies. Technologies that deliver information at the shortest possible time are often used by the elderly to source for information (Yewyi & Suryadiana, 2007).

Schuller and Bostyn (1992) found out that very few elderly people have home computers and that low average incomes and their comparative unfamiliarity with computer technology by the elderly has affected its usage. Invariably, elderly people face several obstacles in accessing sources such as the internet due to physical and infrastructural problems that limit their ICT usage coupled with lack of general interest in ICT (Czaja & Lee, 2007).

ICTs and the Information Behaviour of the Elderly in Nigeria

Information and Communication Technologies (ICTs) is a generic term that covers communication devices or application tools such as radio, television, cell phone, computer networks, hardware and software, satellite systems, internet as well as services and applications associated with them (Yewyi & Suryadiana, 2007). ICTs have been categorized into old and new ICTs based on their capabilities and functionalities. Old ICTs fall in the category of technology that have been around for decades such as television and radio; while the new ICTs are the emerging ICTs that are internet enabled such as broadband, satellite, mobile phones, Automated Teller Machines (ATMs) among others.

The importance of ICTs in meeting the information needs of the elderly cannot be overemphasized due to its numerous benefits to the elderly in various forms such as reducing high expenses for health

and care services by providing individual solutions and meeting individual needs; improving the standard of living of the elderly through access to information to make informed decisions (Gabner & Conrad, 2010). Other benefits include opportunity to participate in meaningful work and activities; social interaction with friends and family members; learning, sharing and developing skill and experiences and opportunity of not becoming socially isolated and lonely after transitional changes such as retirement, bereavement and decline in health (independentage.org.uk). In short, ICTs are essential for elderly people's personal development, interacting with the outside world and exercising their mental and cognitive abilities (Gabner & Conrad, 2010).

The influence of ICTs on elderly people's information behaviour is hinged on using technology as a tool to facilitate their information seeking and simultaneously meeting their diverse needs through available sources consulted. In a study undertaken by Campell & Nolfi (2005), it was revealed that elderly people were more willing to use the internet for general health information, but in the area of making informed decisions about their health care, they preferred direct contact with a physician rather than the use of internet. This depicts that the elderly is particularly concerned with the source of information that affect them directly and not the technology that delivered the information. (Wicks, 2004).

Another study was conducted on the elderly people's access and use of technology in the United Kingdom across different age groupings ranging from 65 to above 80 years. Findings revealed that 70% of over 65 years reported that they have never used the internet, and also elderly people that are 80 years and above with low or no educational qualification are deficient in the use of technology (One voice, 2009). It was also reported that elderly people's access to technology declines dramatically with age. 33% of the elderly who are aged 65-75 years have broadband and the number declines to 13% for those over 75 years. Similarly, 81% of 65-74 years own a mobile phone, while 50% of the elderly above 75 years also owned a phone. This shows that elderly people's use of technology dwindles with age which may be due to lack of interest, anxiety, lack of confidence and physiological problems such as nervousness, lack of good eye sight among others. On the contrary, Olsson, & Viscovi, (2016) revealed in their study that senior citizens in Sweden make use of one ICT device or the other in order to connect to the internet. The commonly used ICT devices were smart phones and laptops. It was found that the level of income of these senior citizens determined the types of ICT devices procured for their use.

In the same vein, findings from a Research group tagged 'Age concern and Help the Aged' indicated that older people are the fastest growing group online, even though a smaller percentage of them are online (www.ageconcern.org.uk). It was further revealed that people who are 65 years and above spend more hours online than the average for all ages which may be due to having more leisure time for social activities. It was found that 68% of internet users aged 65 and above majorly used it for communicating on a weekly basis to their family members, relatives and children that are afar off.

Challenges Faced by the Elderly in Nigeria in Meeting their Information Needs and Seeking using ICT

Elderly people face a lot of challenges in accessing electronic sources of information most especially in meeting their diverse needs. These electronic sources include ICT products (such as computers, telephones and the wide range of other ICT devices now part of everyday life), ICT-based network services (such as telephony and TV), the many web-based and phone-based services that are in everyday use today (such as online government and shopping, call centres and so on) and other ICT-based modes of service delivery (such as self-service terminals like ATMs and e-ticket machines).

Many older people are also inhibited to use ICT by the low value placed upon them in our society in which elderly people are perceived (and therefore treated) as liabilities. Many elderly people are socialized into passive roles and, accepting the problems they experience as an inevitable part of growing old do not actively seek help or information. Allen et al. (1992) suggest that "fears of old age, disability and death tend to combine to militate against active planning for one's own personal deterioration".

Other challenges faced by the elderly could be analysed based on attitudinal, functional and physical reasons. Attitudinally, older people are likely to exhibit some anxiety because of the changes they anticipate in the use of ICT and are not also technology is actually useful and suitable to them as old people. This may be borne out of misconceptions about computers, fear that it might be difficult to master by older people (Czaja & Lee 2007; Morris et al., 2007).

Another basic challenge faced by the elderly in Nigeria is the low level of education coupled with the level of income in the sense that the choice of information channel is determined by the educational level of the elderly (Goodman, 1992; Hales-Mabry, 1993). Elderly people with a higher level of education are more likely to choose a variety of channels and sources. This was especially true for the use of computers and the Internet as an information channel (Williamson, 1996;). Higher income levels are also indicative of the choice of the Internet as a source of information, and to a lesser extent, magazines, newspapers, and formal information channels (Goodman, 1992).

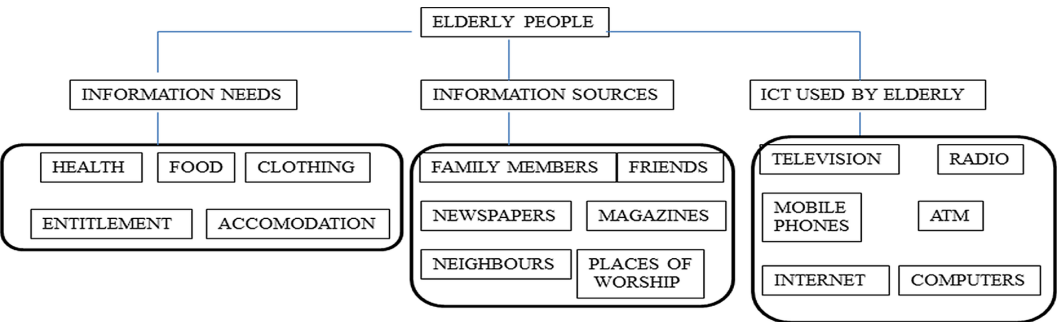
Non-availability of ICTs such as internet services is a major challenge and where available its cost is prohibitive for elderly that are non-income earners. Inaccessibility to ICTs such as internet, computers by the elderly is due to infrastructural deficiencies peculiar to the Nigerian environment such as incessant power failure, lack of internet connectivity and so on. This depicts that internet as a source of information is not often consulted by the elderly due to lack of convenience, ease of use and flexibility. Again, this is in contrast to the developed world where the elderly is found to use the internet facility as a reliable source of information due to the robustness of infrastructure used. In the case of mobile phones, older adults report that their use of mobile phones is limited by some functions, such as small buttons, SMS, and other advanced features These functions are generally perceived as non-user-friendly because of age-related physical limitations (Kurniawan et al., 2006). Age-related frailties affect ICT adoption, especially in the oldest old (Czaja & Lee, 2007). As documented, age increase is associated with some losses in cognition, specifically in the general fluid intelligence (Gf) – a critical factor in learning (Czaja & Lee, 2007) (see Figure 1).

Appropriate Strategies in Improving the Use of ICTs to meet the Information Needs of the Elderly in Nigeria

In addressing the numerous challenges faced by the elderly in their use of ICTs, specific and appropriate strategies are needed to improve elderly people’s use of ICTs to meet their diverse information needs. These strategies are enumerated below.

Firstly, elderly people need to be informed on the relevance of ICTs to their daily living bearing in mind that old people according to the disengagement theory tend to withdraw from societal changes. In essence, this would be achieved through formal and informal training, awareness and support programmes to enable them to overcome their fears, anxieties and their preconceptions about the

Figure 1. Conceptual model showing elderly people's information needs, sources, and types of ICTs



CONCEPTUAL MODEL OF THE ELDERLY PEOPLE'S INFORMATION NEEDS, SOURCES AND ICTs USED

use of ICTs. This is in line with the outcome of the Consumer Panel research on the elderly which states that elderly people use technology if they are aware of its benefits, and they receive the right training and support (Communications Consumer Panel, 2006).

Secondly, the digital gap that does exist between the elderly in the rural and urban areas should be bridged. In a bid to achieving this equality, learning materials and help that is adapted to the elderly is needed, either from trainers or preferably from others in their social networks that can pass on the skills. This could also be accomplished by the government providing telecentres in urban and rural areas for the elderly where facilities should be made available so that they can learn independently or in social groups. This will also act as a one stop point where the elderly can have access to any type of ICTs that will be useful in meeting their needs; thereby facilitating their social inclusion and enhancing their level of interaction in the society.

Thirdly, because of the cost of the ICT equipment coupled with the low income of the elderly, there should be development of community information centres for older people. This can be linked with other important facilities like hospitals, playgrounds, libraries etc. These centres will provide free internet access and other coordinated services for older people to meet their diverse needs. Information service personnel should always provide customized services to the elderly to satisfy their information needs and seeking behaviour as the need arises.

Policy Recommendations

Based on observational and documentary tools employed by the researchers, it can be deduced that ICT use by the elderly in Nigeria is limited to common tools such as radio, television, mobile phones, ATM machines due to their ease of use, flexibility, convenience and affordability. On the other hand, ICTs such as internet are rarely used by the elderly due to their complexity in usage and infrastructural deficiencies such as lack of electricity, constant network failures and problem of internet connectivity among others.

In view of these problems confronting the elderly in their use of ICTs to meet their diverse information needs, the following policy options are hereby recommended.

Firstly, Nigerian government should promulgate ICT policy of inclusion for the elderly. In other words, government should ensure that designers of ICT tools take into cognizance the needs of the elderly irrespective of the health and physical status.

Secondly, special training programmes such as workshops should be organized for the elderly in the urban and rural areas to sensitize and enlighten them on the benefits of ICTs that reflect their needs and aspirations and possibly the various ways of accessing these technologies. These training programmes will motivate elderly people to start using and keep using ICTs. Thirdly, as a way of promoting and celebrating the contributions of the elderly as well as dealing with negative attitudes of the elderly, government should give due recognition to the UN International Day for Older Persons. It should be a day where the elderly at the federal, state and local levels will be sensitized on the changing nature of the information age and the role expected of them to function effectively in this age.

CONCLUSION

In conclusion, the elderly in Nigeria are important sets of people that cannot be neglected; rather they should be given a voice in the society irrespective of their old age. Their contributions to the development of the nation cannot be overlooked; they should be respected and acknowledged based on their wealth of experience and knowledge. Social inclusion programmes should be organized by the government on ways of bridging the digital divide being experienced by the elderly in the rural and urban areas. Nigerian government should promote regular use of ICTs by the elderly in order to improve their information seeking and fulfilment of their diverse needs. It will also help them to grow old gracefully, feeling fulfilled and appreciated as their basic needs are being met even at old age. Lastly, family members should always be ready to address personal, environmental and infrastructural challenges militating against elderly people's use of ICTs.

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