



DIGITAL MIGRATION AND SOCIAL INCLUSION OF SENIOR CITIZENS

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Abstract

We now live in a digitally saturated environment. The notions of displacement apply also in the digital realm, especially with regard to senior citizens. Researching the usage of digital media by senior citizens is of relevance, as an unequal access and competencies related to digital media remains a problem of their social inclusion in a digitalized world. Anchored on the Uses and Gratifications Theory, this study sets to investigate the usage, mode of usage and what influences the usage of Information and Communication Technologies/digital media among seniors. Survey method was used with questionnaire as the instrument for data collection to sample 300 senior citizens in Asaba and Calabar, cities in the South-South geo-political zone of Nigeria. The study found that although access to the digital media has increased among the senior citizens, usage gap is still clearly visible as most seniors do not play active roles in digital activities. It is recommended that there should be community support for digital literacy of the older adults so that digital society would be all inclusive, not having these most vulnerable citizens excluded from digital activities and involvement.

Keywords

ICTs, Senior Citizens, Digital, Migration, Social Inclusion



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ЦИФРОВАЯ МИГРАЦИЯ И СОЦИАЛЬНАЯ ИНТЕГРАЦИЯ ПОЖИЛЫХ ЛЮДЕЙ

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Аннотация

Мы живем в цифровой среде, насыщенной цифровыми технологиями. Понятие вытеснения применяется также и в цифровой сфере, особенно в отношении пожилых людей. Исследования использования цифровых медиа пожилыми людьми имеют актуальное значение, поскольку неравный доступ к цифровым медиа и неравные компетенции, связанные с ними, остаются проблемой их социальной интеграции в цифровом мире. Опираясь на теорию использования и удовлетворения, данное исследование посвящено анализу использования, способа и факторов, влияющих на использование информационных и коммуникационных технологий/цифровых средств массовой информации среди пожилых людей. В Асабе и Калабаре, городах Нигерии, расположенных по линии Юг-Юг, в качестве инструмента сбора данных при опросе 300 пожилых людей использовался метод анкетирования. Исследование показало, что, несмотря на увеличение доступа к цифровым средствам массовой информации среди пожилых людей, разрыв в использовании все еще четко виден, поскольку большинство пожилых людей не играют активной роли в цифровой деятельности. Авторы полагают, что цифровая грамотность пожилых людей должна получать поддержку со стороны общества, чтобы цифровое общество было инклюзивным и не лишало этих наиболее уязвимых граждан возможности заниматься цифровой деятельностью и участвовать в ней.

Keywords

Информационно-коммуникационные технологии, пожилые люди, цифровые технологии, миграция, социальная интеграция



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1. INTRODUCTION

In recent times, there has been an increasing dependence on Information and Communication Technologies (ICTs) in professional circles and private lives. ICT is ‘the use of computer technology and its associated software, audio-visual and telecommunication equipments (including mobile phones) to send, receive, store and even manipulate information for desired objectives’ (Ejechi, 2013; p. 118). ICTs have been seen as ‘quasi-objects’ (Latour, 1995) and artefacts which negotiate social space and power (Wise, 1997). They function as ‘technologies of relationships’; objects of emotions, feelings and experiences that relate to how the media can be integrated and used; shaping social life and interactions (Givskov, 2017). Most digital technologies used today are internet-enabled, migrating from just making calls and sending short messages, to indispensable gadgets that play multi-faceted roles including computing, banking, online shopping, virtual assistant, fitness coach, personal physician, news source, compass, etc. They also enable the users to call, chat, ping, Facebook, tweet, Whatsapp, surf, search and browse thereby increasing their online presence.

Existing literature (Omenugha, 2010; Cash et al 2012; Christensen & Jerslev, 2016) record that the flood of information provided by the internet makes the users ever present in space, navigating from one application to another seeking for information, education, entertainment, support etc. Media applications such as SMS, chat, blogs, social platforms mediate our relationships to family members, friends, romantic and sexual partners and wider social networks in society.

Research has proved that ageing people easily get isolated because of retirement, death of friends and family, and people moving away. They therefore lose contact or communication with their social network members (Havens, Hall, Sylvestre, & Jivan, 2004). Ageing also comes with some physical, mental, and health depreciation. This situation raises a question on how to tackle a problem of the ageing population. Research (Nef, Ganea, Muri & Mosimann, 2013; Omotayo, 2015) has linked digital media to positive management of ageing. It offers opportunities and challenges in providing support and in enhancing the daily lives of older people; and a tool that can ensure active aging and socio economic participation of the elderly (Omotayo, 2015). Digital activities such as financial matters, entertainment, shopping, information and news offer opportunities that could be beneficial particularly for seniors limited in mobility (Bergstron, 2017).



Bergstron(2017), quoting (Robinson et al, 2015) notes that those who function better in the digital realm and participate fully in a digitally mediated social life enjoy advantages over their digitally disadvantaged counterpart. The elderly population have less familiarity with ICTs compared to the younger generation, having being born at least 55-60 years ago when personal computers were not yet commonplace (Morris & Venkatesh, 2000). Researching the usage of digital media by senior citizens is of relevance, as an unequal access and competencies related to digital media remains a problem of social inclusion in a digitalized world. Social inclusion demands ability to use digital media, a prerequisite that is difficult for a large number of older people. Empirical studies (Ratzenbock, 2016; Ezeh, 2015) have suggested older people's low usage of digital media. Senior citizens are regarded as people 60 years old and older. 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 (Afolayan, 2017). There is need to reduce digital inequalities and to foster participation of all citizens including the elderly to the information society.

Although the multidimensionality of ICT experiences of older adults has been demonstrated repeatedly, there is still need for an empirical substantiation given the fact of individual aspects of ICT experiences of older adults in empirical material. This paper addresses accessibility, perception, skills and strategies in the use of digital technology amongst senior citizens in Nigeria, with a view to understanding how it affects their social inclusion which is significant in a digital society.

2. RESEARCH QUESTIONS

1. What is the level of use of digital media technologies among the senior citizens?
2. What are senior citizens' experiences and engagements in the digital space?
3. What influences the use of digital media technologies among the senior citizens?

3. LITERATURE REVIEW. SENIOR CITIZENS AND DIGITAL MEDIA TECHNOLOGIES

There is a significant increase in the number of the elderly people as a proportion of the world's population (Aluko, 2007, Omotayo, 2015). This population is projected to increase to nearly 2 billion by 2050 (United



Nations Population Division, 2010). UNPD also noted that, two-thirds of the world's older people live in developing countries; and will increase to 80 percent by 2050. The aged or elderly are regarded as people 60 years old and older, although research (Givskov, 2017) has proved that women on the average live longer than men, which is why they are more exposed to experiences of decline in life quality as an effect of ageing.

Challenges faced by older people are mostly health issues and boredom. Boredom arises from loneliness (Thetide, 2012); and old age brings with it reduced capacity for work, as well as difficulties in accessing health care and other essential services, increasing the likelihood of older people becoming and remaining poor; and in condition of helplessness and passivity (Maierhofer, 2004), as well as technical illiteracy (Ostlund, 2005). The absence of well-funded Pension Scheme that could cushion everyday challenges that comes with old age (Agunbiade & Akinyemi, 2015) which results in over dependence on other; and reoccurrences of some health challenges make growing old worrisome in some communities in Africa.

Digital media is seen as a property of late modernity; and poses specific challenges on the older adults (Givskov, 2017); and digital literacy of older adults is often understood in relation to the supposedly declining minds and bodies (Lenstra, 2017). Empirical studies (Ratzenbock, 2016; Ezeh, 2015) have suggested older people's low usage of digital media. For example, in political socialization, scholars (Jennings and Zeitner 2003; Kohut, 2008; Kushin and Yamamoto, 2010) have proved that young people are particularly well-positioned to take advantage of the opportunities offered by the Internet and digital technology for political engagements than older adults. Among academics also, scholars (Ejechi, 2013; Ukwueze, 2014) found that older and longer serving lecturers tend to use the ICT tools less frequently than the younger colleagues.

However, there are individual elements that influence elderly people's usage of digital media which include; personal life-long interests in technologies (Ratzenbock, 2016; Fernandez-Ardevol and Arroyo Prieto, 2012); changes in personal living conditions, such as health status (AARP, 2010) and professional experiences (Buse, 2010). ICTs products are also less adapted to the elderly, example, computers and mobile phones often have complicated navigation steps and the interface is not suitable for use by the elderly (Omotayo, 2015).

Technology use among older adults is a quickly growing phenomenon, with beneficial outcome for those who choose to participate (Zheng et al, 2012). In this era of 'Big Data', the ICTs users increasingly traverse different, interconnected physical and virtual platforms, leaving traces and becoming present in places and times that



they may or may not recognise or appreciate (Jensen, 2016). For example, (AARP, 2010) has shown positive results that most of the family members getting closer after their elder family members have adopted the social networking site like Facebook. Children and close relatives tend to be more influential in the elderly decision to adopt and use ICTs because when people grow old, they usually have less contact with other people and so have reduced social networks (Omotayo, 2015). Digital technologies can enable the elderly to stay at home longer and in good health while increasing their quality of living by supplying ways of keeping in touch with their loved ones (AARP, 2010; Nistelrooij, 2010).

Conversely, it has been established that people have problems with media ubiquity, (Lomborg & Bechmann, 2015; Karlsen & Syvertsen, 2016). The digital technology/media with the characteristics they offer is likely to influence both individual's sense of present and their common ability to construct and maintain social relations, (Christensen & Jerslev, 2016). Joo & Teng, (2017) notes that social networking sites have also changed their users' perception of the lives of friends and family members, causing relationship problems largely around privacy, time demands and communication. The longer people log on Facebook, the more they start to believe that others have a better life than they do. This may cause most of them having bad impression and looking down on their family members which eventually leads to a negative conversation and relationships (Diaz, Evans, and Gallaher, 2011; Probono Australia, 2012).

4. THEORETICAL FRAMEWORK. USES AND GRATIFICATIONS THEORY

This work is anchored on Uses and Gratifications Theory. It was propounded in 1974 by Elihu Katz, Jay Blumler and Michael Gurevitch as an approach to understanding why and how people actively seek out specific media to satisfy specific needs. It focuses on the question 'what do the media do to people?' rather than, 'what people do with the media?' It discusses how users deliberately choose media that will satisfy given needs and allow one to enhance knowledge, relaxation, social interaction, diversion or escape. Uses and Gratifications theory also called functional theory is concerned with the social and psychological origin of needs, which generate expectation of the media which lead to different patterns of media exposure, resulting in need gratification and other consequences, mostly unintended ones (Lariscy, Tinkham, & Sweetser, 2011).

There are as many reasons for using the media as there are media users. People's needs are generated by their individual differences and they



selectively choose, attend to, perceive and retain media offerings based on their needs, beliefs, age, sex, occupation, level of income, ethnic group and educational qualification (Edegoh & Ezeh, 2015). The Uses and Gratification theory is relevant to the study in that it helps in explaining why senior citizens of Nigeria use or do not use digital media and; the gratifications they receive from them.

5. METHOD

Survey design was adopted for this study. The justification for the adoption of the survey research design is premised on its capacity to provide a platform on which the researcher can assess senior citizens' use of digital technologies. The area of study is Asaba and Calabar, capitals of Delta and Cross River states respectively in South-South geo-political zone of Nigeria, from which 300 respondents were purposively selected. The choice of the cities was because the educated older adult population who are more likely to have access to digital media than their cohorts are more likely to be found in the cities, either as professionals, retirees or business persons. The choice of 300 respondents as the sample size for the study was informed by the principle set forth by Comrey and Lee (1992), that "one guideline recommended for multivariate studies is as follows: 50 = very poor; 100 = poor; 200 = fair; 300 = good; 500 = very good; and 1000 = excellent.

The sampling technique adopted for this study was the multi-stage cluster sampling technique. The multi-stage cluster design is a procedure in which a sample of units is drawn by taking a series of simple random samples. In order to control sampling errors, it is best to use small areas or clusters both to decrease the number of elements in each cluster and to maximise the number of clusters selected (Babbie, 2010). Asaba and its environs have two local governments; Oshimili South and Oshimili North Local Government Areas. Oshimili South local government area was purposively selected because it is the seat of government in Delta state. Oshimili South was further clustered into four districts; Central Core Area, Okpanam Road, Ezenei Area and Cable Point Area. Calabar also has two local government areas; Calabar Municipal Government Area and Calabar South. Calabar Municipal was purposively chosen not only because it hosts the seat of the Cross River State government but also because it plays its role as headquarters of the Southern Senatorial Districts. Calabar Municipal was further clustered into the 10 wards in the local government; Ward 1 to Ward 10. It is the respondents aged 60 years and above that are within the



selected Local Government Area that constituted the sample frame for the study.

Owing that it is difficult to get the population of the senior citizens in Asaba and Calabar, the researchers decided to use Convenience Sampling Technique to select 50 respondents from each of the Local Government selected. The researchers targeted banks, pension offices of the selected local governments, shopping malls, business areas and worship places where they had contacts with the respondents. The questionnaire was designed for the collection of data for this study. The questions that elicited information on demographic data of the respondents are in ‘close-ended format’ while questions that addressed the research question are of ‘Likert –format’ statement on a five point scale. It is the senior citizens within the selected areas that constituted the sample frame for the study.

The results of study are presented, analyzed and discussed below using SPSS statistical tool. Three hundred copies of the questionnaire were administered on the respondents. However, 275 copies of the questionnaire were valid for this study. The details of results are as follows

6. RESULTS

Demographic Characteristics of the Respondents

	Frequency	Percent
Male	152	55.3
Female	123	44.7
Total	275	100.0

Table 1: Sex Distribution of the Respondents

The data on Table 1 above represent the gender distribution of the respondents. It shows that the females were a little under sampled.

Age	Male	Female	Total
60-65	65.1%	19.5%	44.7%
66-70	25.7%	56.1%	39.3%
71 and above	9.2%	24.4%	16.0%
Total	100.0%	100.0%	100.0%

Table 2: Relationship between the Age and Sex of the Respondents



The data on Table 2 above suggest that the senior citizens in the 60 to 65 age brackets constituted the highest population sampled. The data also suggest that among the sampled population, most of the female respondents were older than their male counterparts.

		Percent
Valid	Married	51.6
	Widowed	36.0
	Divorced	8.7
	Others	3.6
Total		100.0

Table 3: Marital Status of the Respondents

Data on the marital status of the respondents show that majority of the respondents 51% were married and the number that are divorced is grossly insignificant at 8.7%.

		Percent
Valid	Standard 6	9.1
	Secondary Education	22.2
	OND/Diploma	16.0
	HND/Degree	36.0
	M.Sc/Ph.D	11.3
	Others	5.5
Total		100.0

Table 4: Educational Qualification of the Respondents

Data on Table 3 above show that the respondents are relatively educated as majority of them are HND and Degree holders. Only very few of them have postgraduate degree and Standard 6.

Occupation	Sex		Total
	Male	Female	
Civil Servant	46.7%	19.5%	34.5%
Business	45.4%		25.1%
Professional	7.9%	40.7%	22.5%
Unemployed		39.8%	17.8%
Total	100.0%	100.0%	100.0%

Table 5: Relationship between Occupation and the Sex of the Respondents



The result of the occupation of the respondents (presently or before retirement) shows that majority of them are gainfully employed. However, female respondents constitute the few that are not gainfully employed

Average income per month	Sex		Total
	male	female	
Below N50,000	42.1%	23.6%	33.8%
50, 000 -99,000	57.9%	26.8%	44.0%
100,000 & Above		49.6%	22.2%
Total	100.0%	100.0%	100.0%

Table 6: Relationship between the Average Income and Gender of the Respondents

Data on Table 6 above show that majority of the respondents earn N50, 000 to N99, 000. It also shows that male respondents earn higher than their female counterpart.

Current Health Status	Age			Total
	60-65	66-70	71 and above	
Poor	32.5%	13.0%	13.6%	21.8%
Good	67.5%	12.0%	31.8%	40.0%
very good		75.0%	54.5%	38.2%
Total	100.0%	100.0%	100.0%	100.0%

Table 7: Relationship between the Current Health Status and Gender of the Respondents

Data on Table 7above show the current health status of the seniors. The data indicate that majority of the respondents are still in relatively good health. Also the data suggest that the health condition of the respondents is not dependent on age.

Respondents' Access and Use of ICTs

	Computers	Mobile Phones	Smart Phone/Tablets	Internet
Yes	32%	93.8%	50.2%	56.4%
No	68%	6.2%	49.8%	43.6%
Total	100.0%	100.0%	100.0%	100.0%
	(n= 275)	(n= 275)	(n= 275)	(n= 275)

Table 8: ICTs Access by the Senior Citizens



The data on Table 8 represent the distribution of the respondents' use of ICTs. According to the table, almost all the respondents have access to mobile phone; about half have access to Smartphone or Tablet, while their access to computer is still low at 32%.

	Mean	Std. Deviation
Listening/reading news	2.22	1.172
Making and receiving calls	3.57	1.269
Connecting with family and friends through SNS	2.56	1.537
Watching video / listening to music	2.19	1.269
Seeking health information	2.51	1.386
E-transactions	1.45	1.464
Sending SMS	3.12	1.269
Sending Email	2.05	1.141

Table 9: ICTs Applications in use

Table 9 above displays the data on the ranking by respondents of the different ICTs applications they use. Reading across the table, it shows that only 'making and receiving calls' and 'sending messages' are significant at >3.0, while other applications are insignificant <3.0.

Respondents' Experiences with ICTs

s/n		N	Mean	Std. Deviation
1	I use ICTs in professional activities	275	2.46	1.386
2	Idon't have knowledge of ICTs	275	2.64	1.503
3	Idon't have interest in the use of ICTs	275	2.82	1.413
4	I have interest inICTs but could not learn it	275	3.57	1.358
5	I have interest but couldn't afford it	275	3.53	1.330
6	Iuse to forget how to give them	275	3.49	1.381
Valid N (listwise)		275		

Table 10 Senior citizens experiences with ICTs

This study further sought to know the respondents' experiences with ICTs. Going through the data on the Table 10, it could be deduced that skill, affordability and memory loss are the significant experiences the seniors have with the use of ICTs. Others are insignificant at < 3.0.



RQ3: What influences the use of digital technologies among the senior citizens?

		N	Mean	Std. Deviation
1.	Retirement	275	2.77	1.381
2.	Health condition	275	3.56	1.377
3.	Family and friends	275	3.68	1.253
4.	Online banking, e-commerce, etc	275	2.41	1.333
Valid N (listwise)		275		

What influences Seniors' adoption of ICTs

The most significant factor that influenced seniors' use of ICTs was family and friends influences, followed by health condition influences. Other factors were retirement and transactional, although there are insignificant.

7. DISCUSSION OF FINDINGS

The study set out to investigate the use of digital media among senior citizens in Asaba and Calabar, with a view to understanding how it affects their social inclusion in a digitalised society. It addresses accessibility, skills and experiences in the use of digital technology amongst senior citizens in Nigeria. The study focused on Computers, Smartphones/Tablets, Mobile Phones and Internet not only because of their salience in today's information/ knowledge society but also because of their importance and variability in this study.

The demographic data generated showed that there is no significant disparity between the genders used in the study, although the females were under sampled. Respondents' age 60-65 constituted the highest number in the valid sample of 275 senior citizens, accounting for 44.7 percent of respondents in the study, with women constituting the older population. This corroborates (Givskov, 2017) assertions that women on the average live longer than men which is why they are also exposed to experiences of decline in life quality as effect of aging. Most of the respondents were married. The study also found that most of respondents are graduates. This increases their possibilities of acquiring skills needed in the use of digital media, since ICTs are literate media. Most males among them were civil servants and earning an average of N100, 000, while majority of females among them were professionals. There was no clear indication that the male seniors earn higher than their female counterpart. The seniors are in



good health condition; meaning that fragility does not depend on age alone, but on other factors which could relate to an improved life style.

Access and use of digital media technologies have increased among the senior citizens in south-south Nigeria. Almost all the respondents identified had access to mobile phone, while a reasonable number of them have access to the Smartphone and the Internet. This also reaffirms the position of (Ogunlesi, 2013; Ezeh, 2015) that ICT usage in Nigeria cannot be understood outside the mobile phone revolution. ICTs are slowly but surely becoming part of older people's media repertoires just as in developed world. This corroborates (Zheng et al, 2012) observations that technology use among older adults is a quickly growing phenomenon. Majority of the respondents identified with the use of ICTs in keeping in touch with family members and friend through voice calls and text messages. However, the seniors' utilization of ICTs for social networking and e-mail is still low. They also do not trust/use ICTs for entertainment and financial transactions like banking, online shopping, virtual assistance etc as 'e-transaction' is grossly insignificant at $1.45 < 3.0$. This implies that digital inequality cut across different dimensions of online applications.

This result shows that the respondents' access to smartphones and the Internet does not translate to maximum social inclusion in the information society which is even more beneficial to the seniors who are limited in mobility (Reisenwitz et al, 2007). This is because, digital media technologies are not just neutral channels for the dissemination of information between people but are symbolic activities that involve rituals and practices of use, and influence our relations to others and the world around (Carey, 1992). This as such helps constitute the world as it is experienced, mediate our connection to other people, including our attachment to significant others (Fernandez-Arderol, Sawchuk and Grenier, 2017, p 41).

The second research question sought to understand senior citizens' experiences with ICTs. Despite being civil servants retirees and some professionals who had worked in many capacities in different offices in the major cities of Calabar and Asaba, majority of the respondents did not use ICTs in their professional and private activities. The seniors had interest in the use of digital media but less adaptability to the gadgets, affordability and memory loss at $3.57 > 3.00$, $3.53 > 3.00$ and $3.49 > 3.00$ respectively were their major impediments. Inability to adapt to the use of digital media gadgets could be as a result of what Schaffer (2009) calls generational identity; which denotes mode of media use that are based on youths experiences with the media which are habitually incorporated into everyday life. Older adults prefer careful, planned executed action than 'trial and



error' approaches to ICTs; and difference in practice can be related to different generational experiences with analogue media (Ratzenbock, 2016).

The cost of acquiring some of the gadgets and its services was also a challenge. It has also been indicated on Table 6 that most of the respondents earn between Fifty One Thousand Naira (N51,000.00) to Ninety Nine Thousand Naira (N99, 000.00) which is an average of about Three Thousand, Two Hundred and Seventy Seven (\$3,277.00) dollars per annum. The unstable Retirement Pension Scheme in Nigeria could also put the seniors, mostly retired from active service in a financial jeopardy. Another challenge found is the memory loss and less adaptability of the gadgets to the seniors. Most of the respondents admitted not using digital media because they would always forget how to use them. This memory loss could be as a result of old age which (Lenstra, 2017) said comes with thought process.

The third research question was to identify the factors that influence senior citizens' participation in the digital space. Family and friends of the seniors are the most influential in their adoption and use of digital media technologies. This means that children and close relatives tend to be more influential in the elderly decision to adopt and use ICTs because when people grow old, they usually have less contact with other people and so have reduced social networks (Omotayo, 2015). AARP(2010) has also proved that most family members get closer after their elder family members have adopted digital technology. The adoption of ICTs could also help the seniors kill boredom which is considered as one of the challenges facing the elderly (Thetide, 2012) . This is also in line with the views of Uses and Gratifications Theory that the rate of adoption and use of media depends on the need the users want to satisfy

Change in the structure of everyday life such as retirement is another significant factor in the adoption of technologies among seniors. This no doubt could be related to the idea of avoiding boredom and maintaining social network of family and friends. However, the seniors are yet to maximize the potentiality of the online media, considering it as a home doctor, and for business transactions. These are still insignificant at <3.0.

8. CONCLUSION

The use of ICTs is linked to the feelings of being in control of today's social environment. The seniors are positioning themselves in the wider context of social inclusion by acquiring the ICTs physical gadgets but digital equality goes beyond mere acquisition of ICTs. The usage gap is



clearly visible as most seniors were not taking active part in the digital activities. The study however concludes that senior members in the South-South geo-political zone in Nigeria are interested in the use of digital media, but lack of skills, access, and memory loss continue to be impediments and excluding factors in the digital space.

9. RECOMMENDATIONS

The study recommends as follows:

1. There should be community support for digital literacy of the older adults so that the seniors who are the most vulnerable in the society will find inclusion in digital activities and involvements.
2. To understand how older citizens embrace technologies that could better their lives, there should be continuous measures for subgroups of seniors, like the rural seniors. Also, since technology is ever evolving, so the need to continue measuring different technology applications.

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