Available online www.unicrossjournals.com

JOURNAL OF CONTEMPORARY RESEARCH (JOCRES)

RESEARCH ARTICLE VOL. 3 (2) ISSN:2814-2241

Date Published: June 30, 2024

Pages 150-158

DEVELOPMENT COMMUNICATION: BRIDGING THE DIGITAL DIVIDE

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Abstract

Information and Communication Technology (ICT) play a crucial role in development communication, serving as a catalyst for bridging the digital divide and fostering socioeconomic advancement. This paper aims to shed light on strategies employed to bridge the digital divide and promote inclusive development. The theoretical framework adopted in this paper were Diffusion of Innovation Theory and Information Society Theory. This paper adopted the Thematic Analysis Approach which focused on existing literatures - conceptual reviews, empirical review, case studies and theories surrounding ICT's role in development communication. The major findings revealed that ICT significantly contributes to development communication by fostering economic development and empowering marginalized communities. However, barriers such as limited and high cost of digital infrastructure, and inadequate digital literacy and skills persist amongst others. The paper concludes that by addressing the identified barriers and embracing innovation, stakeholders can influence ICT to create more development and interconnected society. It therefore, recommended the promotion of effective policy intervention aimed at promoting universal access to affordable ICT infrastructure and services, public-private partnership amongst others.

Keywords: ICT, Development Communication, Digital Divide, Underdeveloped, Technology

1.0 Introduction

Information and Communication Technology (ICT) has emerged as a powerful tool for the advancement of development communication, offering exceptional opportunities to bridge the digital divide and promote development. As the world becomes increasingly connected through digital technologies, the role of ICT in facilitating access to information, promoting economic empowerment, and enhancing community development has become more prominent than ever before (Castells, 2009; Mansell & Wehn, 1998).

In today's digital era, ICT is recognized as an important driver of development, especially in developing nations such as Nigeria. Nigeria needs ICT to facilitate development

at all facets. Ineji (2003) affirmed that "In the third world countries such as Nigeria where development aspirations cut across almost all areas of human endeavours, the mass media become a ready asset to achieve these goals."

However, despite the transformative potential of ICT, significant differences persist in terms of access, adoption, and utilization, particularly in marginalized and underprivileged communities (UNESCO, 2019). The digital divide, characterized by inequalities in access to and utilization of ICT, poses a formidable challenge to efforts aimed at promoting inclusive development (Norris, 2001). Marginalized populations, especially people in remote rural areas and developing regions, often face barriers such as limited infrastructure, high costs, and inadequate digital literacy skills, which hinder their ability to harness the benefits of ICT (Qureshi et al., 2020; Warschauer, 2003). Consequently, addressing the digital divide has become a pressing imperative for policymakers, development practitioners, and researchers alike.

ICT facilitates the exchange of information, enables access to essential services, and empowers individuals and communities to participate in the global economy. However, differences in ICT access and adoption persist, creating a digital divide that intensifies existing inequalities.

Based on the above, this study seeks to explore the diverse dimensions of ICT's roles in development communication and the strategies employed to mitigate persistent digital differences. Through a comprehensive examination of existing literature, theories, and empirical evidence.

2.0 Objectives of the study

This study will be guided by the following outlined objectives:

1. To identify the roles of ICT in development communication.
2. To find out the effects of digital divide on ICT and development communication.
3. To define the strategies towards bridging the digital divide between ICT and development communication.

3.0 Statement of the problem

ICT is a key driver of development communication and has been utilized to enhance development initiatives and other positive empowerment in developed and developing nations. However, in some developing countries like Nigeria, despite the recognized roles of media in promoting development communication, the digital divide persists as a barrier between ICT and development communication, hindering the potential of ICT impacts for development communication. This paper seeks to explore how unequal access to ICT affects development communication initiatives and identify ways to bridging the gap.

4.0 Literature review

4.1 The concepts of ICT and development communication

In today's society, ICT (Information and Communication Technology) plays vital role in all spheres of life. ICT tools includes as mobile phones, internet platforms, and social media are used to disseminate information, promote social change, community mobilization, and facilitate community development initiatives.

According to Pedrelli (2001), "ICT is an enabling technology, leading to the development of many activities in a more effective and less expensive way: fax and e-mail, for instance, are much quicker, more reliable and less expensive than the mail."

He further explained that in the past ICT was generally considered a viable option for development policy but a luxury urgent attention was given to building roads and hospitals and providing drinkable water amongst others but today the 'digital divide' has today become one of the most prominent considerations in the 'development divide', and the early belief is no longer obtainable but when considering the following points:

i. ICT provides unprecedented opportunities to effectively fight against poverty in the developing countries: for example, ICT can support the poor in business development, foster empowerment of the poor, facilitate access to education and health, help improve the environment and prevent natural disasters.
ii. United Nations (UN) considers ICT a priority for the development of poor countries, and many developing countries agree on the importance of the role that ICT can play in their development;
iii. International initiatives are proliferating, the G8 Dot Force, the UN ICT Task Force and several other initiatives are aimed at effectively promoting access to ICT in the developing countries.
iv. Exclusion from ICT increases the divide between the developed and developing countries.

Pertinently, the need for communication is important in any given society. Attesting to this belief, Gbaden & Tsafa (2021), opines that "communication is the fundamental instrument for the development of any society. No society can stand in the absence of communication. All institutions in our society like government, health, agriculture, economy, education and so on, rely on communication to function well.

The origin of development is dated back to the 1940's where the concept of media for development was first put into practice (OSOU, 2019). Development communication is a deliberate communication strategy geared towards the promotion of development. This promotes the betterment of lives in developing nations. According to OSOU (2019, p.4), "Development is bringing positive change in the society with the help of media such as print, radio, video, and the internet." The desire change in every society are mostly positive but there must be a key driver at all levels. OSOU (2019, p.2) maintains that development communication talks about change towards betterment. The change can be about a progress in the field of economics, education or livelihood which is good for the society.

The major thrust of development communication theorists, has been on the use of media as a support to national development programmes live poverty alleviation, population control, literacy drive, employment generation schemes etc. (Hasan, 2014). It is pertinent to mention that development communication seeks to improve the living conditions of developing nations. According to Hasan, (2014, p. 171), "development communication is at aimed at improving the condition and quality of life of people struggling with underdevelopment

and marginalization. It refers to a spectrum of communication processes, strategies and principles within the field of international development."

4.2 Digital divide

The Organization for Economic Co-operation and Development (OECD) defines the digital divide as "the gap between individuals, households, businesses and geographic areas at different socio-economic levels with regard both to their opportunities to access ICT and to their use of the Internet for a wide variety of activities" (OECD 2001, as cited in Venkatesh & Sykes, 2013).

The digital divide are barriers or gaps that hinders ICT and development communication.

i. It encompasses inequalities in internet access, digital literacy and the effective use of technological devices.
ii. Socioeconomic, cultural, and infrastructural barriers to ICT adoption.
iii. Policy and regulatory challenges affecting ICT deployment and utilization.

4.3 Empirical review

In 2002, Herselman & Britton conducted a study on "Analysing the role of ICT in bridging the digital divide amongst learners". The study aimed at determining how ICT can reduce the percentage of RD learners. Also, techniques or technologies that are employed on both an international and local scale regarding overcoming the problem of the digital divide should be identified as possible solutions to the local problem.

The paper adopted multiple case studies to determine the digital divide situation locally, through the use of interviews and questionnaires were shared and answer by learners. Also, a short pilot study was done at four schools and one adult education centre in South Africa to ascertain their ICT accessibility. The major findings showed that that access to telephones and television were the highest of all ICT resources (The ICT resources used in the study were telephones, television**,** information centres, personal computers, electricity and internet). The findings of the study were used to address how ICT can be applied in South Africa to mitigate the existing digital divide between resource-deprived and resource-advantaged learners. They recommended that Africa take advantage of information revolution so as not to be crushed by the wave of technological change and internet should be provided to resource-deprived communities.

In another study carried out by Kumba and Olanrewaju (2023), on "Bridging the Digital Divide: "Improving Information, Communication, and Technology (ICT) in Zimbabwe to Spur Economic Development." A review of literatures based on conceptual reviews of prior works. The objectives of the study were to explore the economic impacts of adopting ICT in Zimbabwe for sustainable development. Also, to make recommendations on how to improve ICT integration in the country. The methodology adopted in the study was the concept matrix mapping based on selected published works during the last decade (2010–2020). The approach followed is the three-step structured literature review process proposed by Kitchenham (2004). The study concluded that bridging the digital divide in Zimbabwe

by using ICT is essential for fostering economic development in the country. Also, efforts must be made by all stakeholders to realize the full potential of ICT.

The findings of these studies reviewed revealed different strategies used in mitigating the digital divide and pointed out that ICT is very essential in the development of a society. However, the uniqueness of this study is based on the theoretical framework and methodology adopted.

5.0 Theoretical framework

The theoretical framework adopted in this study were the Diffusion of Innovation Theory and Information Society Theory. They provided the theoretical insights on ICT and Development communication.

5.1 The diffusion of innovation theory

Diffusion of Innovation Theory, developed by Everett Rogers in 1962, explains in details how new ideas, products, and technologies spread within a society over time (Miller, 2005). It consists of five key elements: innovation, communication channels, time, and social- systems on adopter categories. The diffusion process is characterised by the innovation spreading through these adopter categories over time (Ogbushi, 2020).

In the context of ICT and development communication, the diffusion of Innovation theory helps to understand how technologies such as mobile phones, internet access, and social media spread within communities, and how interventions can increase adoption and maximize impact.

5.2 Information society theory

Information society theory is a sociological concept developed in the 20th century to describe societies that are influenced by information and play a vital role in economic, social, and cultural activities. The lead scholars associated with this theory are Manuel Castells, Daniel Bell and Alvin Toffler.

The theory holds that the advancement in information and communication technologies have transformed the way society's function shifting from industrial-based economies to ones centred on distribution, and consumption of information and knowledge. This theory focuses on the widespread adoption and use of ICT (Bell, 1973). It examines how access to information and communication technologies influences social, economic and cultural dynamics (Castells, 2010).

6.0 Methodology

The paper is qualitative based and adopted the secondary data (existing literatures – conceptual review, empirical review, case studies and theories). These were analysed using thematic analysis approach. This approach is used for identifying, analysing and reporting patterns (themes) within data. (Braun and Clarke, 2006).

6.1 Thematic analysis

6.1.1 The Roles of ICT in development communication

The Role of ICT in development communication cannot be overemphasised. Through the strategic use of ICT in development communication, marginalized communities can be connected, informed, and empowered, ultimately narrowing the digital gap between regions and promoting inclusive development.

ICT plays a crucial role in development communication by providing access to technology and information. Also, helps developing nations to participate in the global digital economy, access educational

resources, receive healthcare information, and engage in civic activities.

ICTs facilitate development communication information dissemination and social empowerment. They enable marginalized communities to speak out their concerns, access essential digital services, and participate in decision-making processes.

Mansell and Wehn (1998) emphasize the transformative potential of ICTs in fostering knowledge societies and sustainable development, enabling information sharing, innovation, and social change.

6.2 Effects of digital divide on ICT and development communication

The effects of digital divide on ICT and development communication clearly points out the gap between people with access to ICT and those who are challenged. The digital divide makes access to information challenging to people without ICT; there is difficulty in participating in developmental programs, agricultural advancement, health services and educational opportunities, especially in rural or underdeveloped areas or communities. This limited access hinders the ability of marginalized groups to participate in knowledge economies, further entrenching poverty and inequality (Van Dijk, 2020).

The digital divide limits economic opportunities of people without access to ICT. ICT provides access to markets, jobs, business and entrepreneurship opportunities. People affected experience may little or no economic benefits, slowing down of overall development and maintaining poverty cycles. Studies have shown that digital exclusion directly correlates with a lack of economic mobility, particularly in developing countries (James, 2022).

There are challenges in policy making and implementation; effective development policies often require ICT for communication, assessment, data collection, and monitoring. The digital divide can lead to inefficiencies in these processes, particularly in rural areas. This can limit the effectiveness of development communication efforts and weaken the impact of policy initiatives (Ojebode, 2019; Servaes, 2018). However, there are strategies employed to bridge the digital divide between ICT and development communication.

Strategies employed to dridge the Digital divide between ICT and development communication

A review of global and regional ICT initiatives reveals a diverse range of strategies for bridging the digital divide. From government-led infrastructure projects to community-led. The World Bank World Development Report (2016) provided policy recommendations for bridging the digital divide and promoting digital inclusion. It emphasized the importance of regulatory reforms, investment in digital infrastructure, and capacity building.

The ITU Measuring the Information Society Report (2017) outlined strategies for bridging the digital divide, including policy interventions, infrastructure development, and community-based initiatives. It emphasized the need for affordable and inclusive ICT policies. Other strategies for addressing this issue include:

i. **Infrastructure development and accessible digital centres:** Invest in

building and expanding ICT infrastructure, including broadband networks, mobile phone coverage, and electricity access in rural and underserved areas. Implement policies and programs to make ICT devices, internet connectivity, and digital services more affordable, such as subsidies and community networks. There should be access to centres, such as community libraries and internet cafés where people can access ICT resources and receive assistance from trained staff.

ii. **Digital literacy/skills training:** Provide basic training and education programs to enhance digital literacy skills among undeveloped populations, including children, youth, elders and people with disabilities, to empower them to use digital technologies effectively for development.

iii. **Promote local digital content:** Develop and promote localized digital content in local languages spoken by underdeveloped communities, ensuring that digital resources are relevant to people.

iv. **Partnerships:** Foster collaboration between governments, private sector companies, NGOs, and civil society organizations to leverage resources and expertise in bridging the digital divide.

v. **Government policy and regulatory reform**: Government should make policies and regulations that promote innovation, and investment in ICT infrastructure and services, while also addressing issues of affordability, accessibility, digital rights and laws.

7.0 Successful interventions in bridging the digital divide: case studies

Previous studies have highlighted the transformative potential of ICT interventions in areas such as education, healthcare, agriculture, and governance, emphasizing the importance of addressing barriers to access and ensuring the inclusive deployment of ICT solutions.

Heeks (2008) presented case studies of successful ICT initiatives in developing countries, highlighting innovative approaches to bridging the digital divide. He discussed projects focusing on ICT-enabled education, healthcare, e-government, and rural development.

Venkatesh and Sykes (2013), studied "Digital Divide Initiative Success in Developing Countries: A Longitudinal Field Study in a Village in India' developed a model of technology use and economic outcomes of digital divide initiatives in developing countries and social networks and were used as guiding theoretical lens based on the context given: low literacy, high poverty, high collectivism and an oral tradition of information dissemination in developing countries. The model was tested with longitudinal data gathered from 210 families in a rural village in India in the context of a digital divide initiative. Findings of the work provides evidence that empowering farmers through the use of Internet kiosks can result in substantial benefits that may indeed complement the benefits of radios, televisions and cooperatives can provide. Also, that both social network constructs, i.e., eigenvector centrality and closeness centrality, influenced

both technology use and economic benefits that were realized by citizens.

8.0 Conclusion

ICT is a crucial tool in bridging the digital divide through development communication. Despite its challenges, the findings revealed that ICT significantly contributes to development communication by fostering economic development, empowering marginalized communities, provide access to essential digital services and foster collaboration amongst communities. However, it is challenged by limited and high cost of digital infrastructure, inadequate digital literacy and skills and unequal distribution of digital benefits. By addressing identified barriers and embracing innovation, stakeholders at all levels can influence ICT to create more development and interconnected society.

9.0 Recommendations

Building on the findings of this paper, several recommendations emerged for leveraging ICT to bridge the digital divide.

1. Policy interventions aimed at promoting universal access to affordable ICT infrastructure and services are essential, as are investments in digital literacy and skills development.
2. Public-private partnerships should be encouraged at all levels.
3. Community-based initiatives and participatory approaches can enhance the effectiveness and sustainability of ICT interventions, ensuring that the benefits of digital technologies are shared equitably across society. Also, further research should be carried out into how to bridge the digital divide between ICT and development communication.

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