Bridging Digital Divide for Productive Interactions and Professional Development: Enhancing the 21st Century Scholars

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Abstract- The observable evidential outcomes of Digitization in the academic and among professionals have created a niche for digital attraction in almost every field of human existence. More than ever, educators and professionals from different walks of life are integrating technology into their dynamic learning process. Right from the classroom, Technology is explored and employed to create projects, garner and analyze data for every result oriented projection. Now that the presence of technology is almost indispensable in the world economy; how do we mitigate against the unattractive effects of digital divide? The glaring gaps between the 'Haves' and 'the Have Not's, the chasm between the possessors of obsolete and those with the State-of-the-Arts Technologies? Above all, the ubiquitous divide that exists between the ardent users and those algid to technology employments? The incorporations of digital educational resources could provide multiple advantages among scholars and other professionals. Constant interactions with digital resources, always pave way for acquisition of skills in the use of devices, ability to surf and navigate different platforms for knowledge endowment. These could develop in scholars, the basic understanding of technological concepts, paving a way for their successful evolvement and sustainable development in the quest for relevance in a rapidly changing world of technologies. This paper therefore, attempts to lay bare the constraints inherent in digital divide and discuss the possible ways of ameliorating the identified digital divide problems.

Key words: Digital Divide, Professional Development, Productive Interaction

I. INTRODUCTION

The word obnosis has been put together from the phrase, 'observing the obvious.' The art of observing the obvious is not in any sense "inborn" or mystical. It is a lucid acclamation that the rapid growth in technology has called for obnosis and futuristic implementation. The growth in information communication and technology cannot be uniform but it can be amplified to reach those that are caught far aback. Information Communication and Technology has become the fulcrum that balances the social sciences, a single progress cannot be made without ICT, and the use of ICT gadgets has helped in portrayal and achievement of communication as a study.

It is quite disheartening but solvable that a lot of people have little or no access to ICT gadgets, stale and obsolete gadgets that will not effectively blend with the contemporary digital world, inadequate knowledge on the practical usage of ICT gadgets.

The study seeks to address how digitization can help produce productive results and professional development in Communication. Productive interaction in areas such as Mass Communication. For every communication intention, a medium is required, communicating with the masses requires a medium or media that will effectively discharge the duty to a wide range of audience within a specific time. Television as a medium, video graphics and editing as a process and feedback process as a productive interaction. Those dwelling in the analog world needs to be enlightened on the importance of familiarizing themselves with tech-devices through seminars, tutorials, workshops and as their knowledge advances, trainings can be held on online platforms such as zoom, google meet, whatsapp and so on.

Information and Communication Technology has been of immense contribution to universal access to education, equity in education, the delivery of quality learning and teaching, educators' professional development and more efficient education management, governance, and administration. Information technology involves a combination of

hardware and software that is used to perform 1the essential tasks that people need and use on an everyday basis. bWith the immeasurably positive impacts of ICT in the dynamic world we are, it is no news that some are left behind in the pursuit of a global world and futuristic development.

What is Digital Divide?

A Digital divide is an economic and social inequality regarding access to, use of, or impact of information and communication technologies (U.S. Department of Commerce, 1995). Extant literature has increased our understanding of the multifaceted nature of the digital divide, showing that it entails more than access to information and communication resources. It entails usage, technical know-how and efficiency of gadgets that aid a more productive interaction and professional development.

The Digital divide is the gap that exists between individuals who have access to modern information and communication technology and those who lack access.

Digital Inequalities

Digital inequalities have emerged as a growing concern in modern societies. These inequalities relate to disparities in access, usage and efficient usage of digital resources. Digital resources including transformative technologies, such as business analytics, big data and artificial intelligence are key for the transition of societies towards sustainability (Pappas et al. 2018; United Nations 2018).

There are three key stages that influence digital inequality worldwide.Digital inequality is evident between people living in urban areas and those living in rural settlements; between socioeconomic groups; between less economically developed countries and more economically developed countries; between the educated and uneducated population. Individuals with access to the same network can be digitally split based on gadgets and technical know-how. Researchers foregrounded digital inequalities related to knowledge, economic and social resources, and attributes of technology such as performance and reliability, and utility realization (DiMaggio et al. 2004; Van Dijk 2006; Van Deursen and Helsper 2015). This has brought about streamlining the paper to how bridging digital divides can help promote Professional Development and Productive Interactions, Enhancing the 21st century scholars.

Types of Digital Divide

There are numerous types of the digital divide that influence our efforts in accessing the internet. Some of the vivid gaps in digital inequality include:

1. Social Divide

Internet access creates relationships and social circles among people with shared interests. Social media platforms like Twitter and Facebook create online peer groups based on similar interests.

More than ever, internet usage has influenced social stratification which is evident in societies among those that are connected to the internet and those that are not. Non-connected groups are sidelined since they do not share in the internet benefits of the connected groups.

2. Universal Access Divide

Individuals living with physical disabilities are often disadvantaged when it comes to accessing the internet. They may have the necessary skills but cannot exploit the available hardware and software.

Some parts of the world will remain segregated from the internet and its vast potential due to lack of adequate literacy skills can be a reason for digital divide.

3. Usage Divide

This entails differences in how individuals use digital technologies, with some using them for mere entertainment while others leverage them for education, entrepreneurship and innovation

4. Socioeconomic Divide: This entails disparities based on income, age, education and gender.

Causes of Digital Divide

For a productive learning, Education in the absence of mass in which the technology will be involved is very hard on students. For instance, a student who is thought on how to use a microphone without the presence of one might find it hard to comprehend. There is need to make the actual physical object available for easy and adequate apprehension. Photographs help and motion pictures as they are a sort of promise or hope of the mass. As learning advances day by day with easier approach to productive learning outcomes, there is need to familiarize the learners with various tech-devices and gadgets that speeds the learning process.

Some key causes of digital divide are;

1. Economic Factors: high cost of devices, internet plans, and digital literacy training
2. Lack of infrastructure: limited internet connectivity, especially in rural areas
3. Digital literacy: insufficient skills to effectively utilize digital technologies
4. Social and Cultural factors: limited access to digital technologies due to gender, age or ethnic biases.

Linking Digital Divide Research with Research on Sustainability

The United Nations´ sustainability goals focus on reducing inequality within and among countries to avoid biased economic development, social exclusion, and environmentally untenable practices. Important dimensions of sustainable development are human rights and social inclusion, shared responsibilities and opportunities (United Nations 2020).

Furthermore, we need to support sustainability in rural areas reducing the urban – rural digital divide. Sustainability researchers have identified the issue pointing to the vulnerabilities of rural communities that are in particular need of bridging inequalities (Onitsuka 2019).

The covid-19 pandemic made digital inequalities even more evident. In periods of social distancing to minimize infection risks, individuals sustain their connections with colleagues, friends, and family through online connections. Furthermore, people need digital skills to keep updated on crucial information and to continue working when possible using home offices and digital connections.

In addition, recent crisis response experiences have shown that switching to digital education may lead to exclusion of the few that cannot afford physical digital tools (Desrosiers 2020), or do not have access to sustainable infrastructures and ICT access.

This crisis has shown that digital divides can become a great challenge aggravating inequalities experienced by marginalized communities such as urban poor and under-resourced businesses. Digital inequalities are a major factor of health-related and socio-economical vulnerability (Beaunoyer et al. 2020).

Bridging Divides for Productive Interactions

In a case of the 2019 pandemic, technology became an inevitable tool for communication home and abroad, the use of zoom, Google meet and other social media platforms became rampant and more effective than the classroom teaching because it calls for a compulsory interactive teaching which results in a productive learning outcome.

Productive interactions refers to effective and efficient communication and collaboration between individuals or groups to achieve a common goal or objective. It entails;

- Active listening and clear communication
- Respectful and open-minded dialogue
- Collaborative problem-solving and idea sharing
- Building trust and rapport
- Adapting to different communication styles and needs (Digital Adaptability)
- Using technology and tools to facilitate interactions
- Providing feedback and constructive criticism
- Being responsive and accountable

Productive interaction leads to:
Improved teamwork and collaboration
Increased innovation and creativity
Enhanced decision-making and problem-solving
Stronger relationship and trust
Greater productivity and efficiency

Bridging Divides for Professional Developments

If teachers are viewed as needing expert knowledge, and professional development is viewed as one means of supporting the construction of that knowledge, then understanding the nature and characteristics of expertise provides us with a metric for our goals. Understanding how people learn, then, should inform the process by which we support learners, both teachers and students, in moving toward that goal.

Technology has made learning easier for both teachers and students even though both categories can fall under the divides, there is need for government and sponsors to organize seminars and workshop where both the teachers and students can be enlightened on how to inculcate technology into their "learning made easy" strategies.

Professional development refers to the ongoing process of improving one's skills, knowledge, and expertise to enhance performance and career advancement. It involves;

- ✓ Continuous learning and education
- ✓ Networking and collaboration
- ✓ Mentoring and coaching
- ✓ Expanding professional networks and connections
- ✓ Building new skills and competencies
- ✓ Digital literacy training

II. CONCLUSION

Bridging digital divides is critical for sustainable digitalized societies. Enhancing educational opportunities, driving economic growth, and improving healthcare accessibility are among the paramount benefits of bridging the digital divide. It is an essential factor for growth and development in our contemporary world. Intensified intentional effort be channeled towards enlightening the rural dwellers and harnessing resources to help enhance sustainability. By reducing the digital divide, we can empower individuals with the skills they need to participate in the digital economy and improve their economic prospects. The findings of this study can provide a foundation for 21st century scholars and a basis for teachers and students to orient themselves.

Recommendations

- I recommend that data analytics be used in identifying areas with significant digital divide and deliberate action be put in place to alleviate or eradicate it.
- Identify the unique needs of different communities and engage with them to find the most effective solutions.
- Government and NGOs should help organize workshops and seminars for training and enlightenment.
- Increase connectivity most especially in the rural communities
- Encourage digital participation and discourage cybercrimes and bullying

REFERENCES

[1] Beaunoyer, E., Dupéré, S., & Guitton, M. J. (2020). COVID-19 and digital inequalities: Reciprocal impacts and mitigation strategies. Computers in Human Behavior, 111, 106424.

[2] Burtch, G., & Chan, J. (2019). Investigating the relationship between medical crowdfunding and personal bankruptcy in the United States: evidence of a digital divide. MIS Quarterly, 43(1), 237–262.

[3] Davis, J. G., Kuan, K. K., & Poon, S. (2020). Digital exclusion and divide in the United States: exploratory empirical analysis of contributing factors. In AMCIS 2020 Proceedings. 1. Fully Online Event. https://aisel.aisnet.org/amcis2020/social_inclusion/social_inclusion/.

[4] Desrosiers, M.-E. (2020). As universities move classes online, let's not forget the digital divide, Policy Options Politiques. https://policyoptions.irpp.org/magazines/march-2020/as-universities-move-classes-online-lets-not-forget-the-digital-divide/. Accessed 25 Mar 2020.

[5] Díaz Andrade, A., & Techatassanasoontorn, A. A. (2020). Digital enforcement: Rethinking the pursuit of a digitally-enabled society. Information Systems Journal, 12306, 1–14.

[6] DiMaggio, P., Hargittai, E., Celeste, C., & Shafer, S. (2004). Digital inequality: From unequal access to differentiated use. In Social inequality (pp. 355–400). New YorK: Russell Sage Foundation.

[7] OECD. (2001). Understanding the digital divide. OECD Digital Economy Papers, 49, OECD Publishing, Paris, France. https://doi.org/10.1787/236405667766.

[8] Onitsuka, K. (2019). How social media can foster social innovation in disadvantaged rural communities. Sustainability, 11(2697), 1–24.

[9] Pethig, F., & Kroenung, J. (2019). Specialized information systems for the digitally disadvantaged. Journal of the Association for Information Systems, 20(10), 1412–1446.

[10] Pentzaropoulos, G. C., & Tsiougou, D. (2014). E-inclusion policies for contemporary knowledge economies and societies: an examination of the main issues. Journal of Social Research & Policy, 5(1), 77–89.

[11] Pick, J., & Azari, R. (2011). A global model of technological utilization based on governmental, business-investment, social, and economic factors. Journal of Management Information Systems, 28(1), 49–57

[12] Pick, J., & Sarkar, A. (2016). Theories of the digital divide: Critical comparison. In 49th Hawaii International Conference on System

Sciences (HICSS 2016) Proceedings, IEEE, 3888–3897.

[13] Pick, J., Sarkar, A., & Parrish, E. (2018). Internet use and online activities in US States: geographic disparities and socio-economic influences. In the 51st Hawaii International Conference on System Sciences (HICSS 2018) Proceedings, IEEE, 3853–3863.

[14] Reinartz, A., Buhtz, K., Graf-Vlachy, L., & König, A. (2018). Mechanisms of engagement with, and disengagement from, Internet applications: A qualitative study of online job search. In International Conference on Information Systems (ICIS).