Impact of Digital Public Framework on ICT And Digital Technology

Tanu[1], Dr. V. K. Srivastava[2]

[1]Research Scholar, Computer Science & Applications, Baba Mastnath University, Rohtak, Haryana, India.
[2]Professor, Baba Mastnath University, Rohtak, Haryana, India.
Emails: chughtani@gmail.com[1], srivastava_v_k@yahoo.com[2]

Abstract

Over the ages, ICT literacy had been ranging widely their importance and diversity for enabling the technological world while accessing the information, doing technologically based skills, performing complex tasks, and understanding the digital divide gap for expanding the access to hardware, software, networks, etc. Variety of ICT skills are used to get limited benefits- of technology applications and tools. A continued focus on building infrastructure should be complemented by an effort to identify, manage, evaluate, create information in a traditional sense and provide the use of technology with necessary tools to acquire digital knowledge. Numerous of the framework will be deployed and defined for measuring robust technology and determining the quality of digital knowledge. In this research paper, after discussing all digital knowledge representing components in sequence new public policies have been created by accessing, managing, integrating, evaluating, and designing five critical components. The innovated framework will provide skills and knowledge on the basis of an accepted definition of skills with information and communication technology. Also, this framework will identify the digital divide in between the accepted technology and accessing the resources.

Keywords: ICT; Information and communication technology; DPI; Digital Public Framework; Digital Technology

1. Introduction

Digital transformation is accelerating worldwide and new trends are merging to construct and accelerate sustainable development goals with digital public infrastructure that enables digitization and unlocks innovation of digital services. Digital Public Infrastructure (DPI) shares the building block principles of digital systems that should be secure, interoperable, trustworthy, accessible, and inclusion of an open standards (that should be accessible by public or private services and by applicable legal frameworks). Change, transformation, and innovation in different dimensions of life have always been an integral part of the system of being. Perhaps it is safe to say that these domains have the most impact on the ICT, digital knowledge, and digital technology. The features of this century are the amazing development of information and communication technology and its applications to boost the services, quality of the services, and delivery time of the quality services. Public infrastructure has been a keystone of human advancement. From immemorial time of 20th century of information technology to 21st century of information and communication technology now opens doors of content based and money based society. Also, it has been built the new and innovative challenges for technology, and embodied nature of digital infrastructure. Rapid digital transformation has been taken place in boom during the pandemic and leads to the expansion of opportunities of e-commerce, digital information, digital inclusion, new employment opportunities, income earning, and skill development programs. In today's era technology and user is shifting over the inclusion of electronic components with digital media libraries which facilitate the various modes of public infrastructure and underline different edges of high technology. This research paper examines the technological

adoption framework, dynamic and innovative digital transformation of the services. The impact of these inclusive frameworks anticipates technological innovation, digital inclusion, and socio-economic development. [1-3]
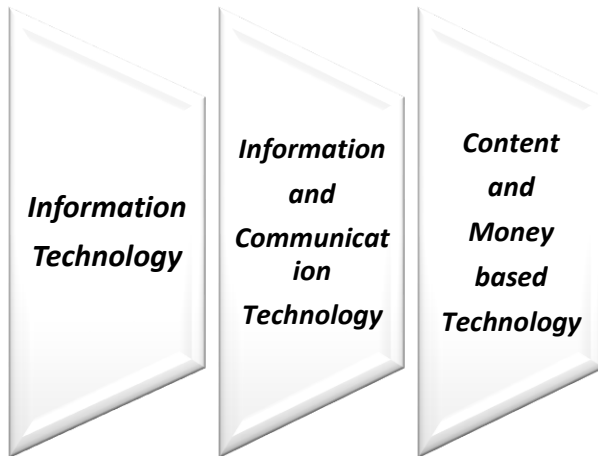

Figure 1 Transforming the Technology From 20th Century To 21st Century

2. Methods

To obtain the objective of the research paper, firstly define the digital public infrastructure role for adopting and influencing that how digital public frameworks impacts on ICT adoption and promoting digital technology innovation. After discussing the different set of skills and knowledge representing in a sequence of five critical components of ICT that is linked to the existing and new public policies for improving the effectiveness and productivity of the framework. [4]
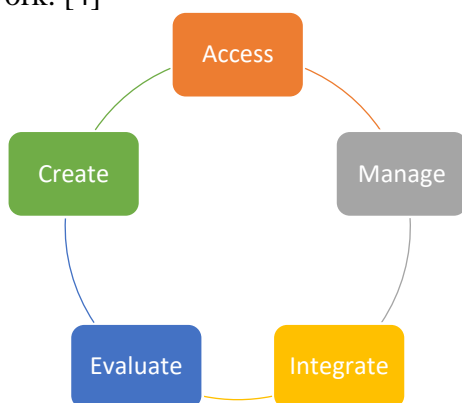

Figure 2 Critical Components of ICT

The listed five components are:

1. Access: Knowing about and knowing how to collect and/or retrieve information.
2. Manage: Applying an existing organizational or classification scheme.
3. Integrate: Interpreting and representing the information. It implies summarizing, comparing, and contrasting.
4. Evaluate: Making judgments about the quality, relevance, usefulness, or efficiency of information.
5. Create: Generating information by adapting, applying, designing, inventing, or Authoring information.

To develop and validate framework action when engaging the activities in digital transformation, this research paper will follow a multi-phased process.
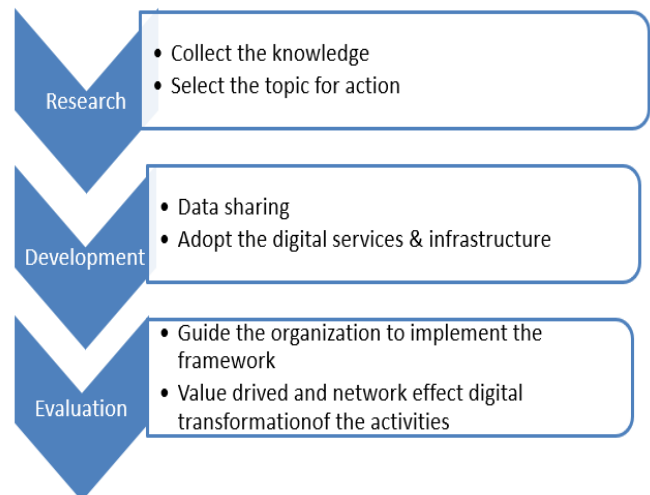

Figure 4 Transformation of The Information into Digital Knowledge

3. Results And Discussion

After studying the nature of the gathered information and this information will be mapped and distributed from good platform structures to the digital transformation. This distribution among the different platforms helps us to understand the dynamics of power, allows us to examine the overall development of socio-economic platform, and suggests the future directions for inclusive policy and regulation development. [5]
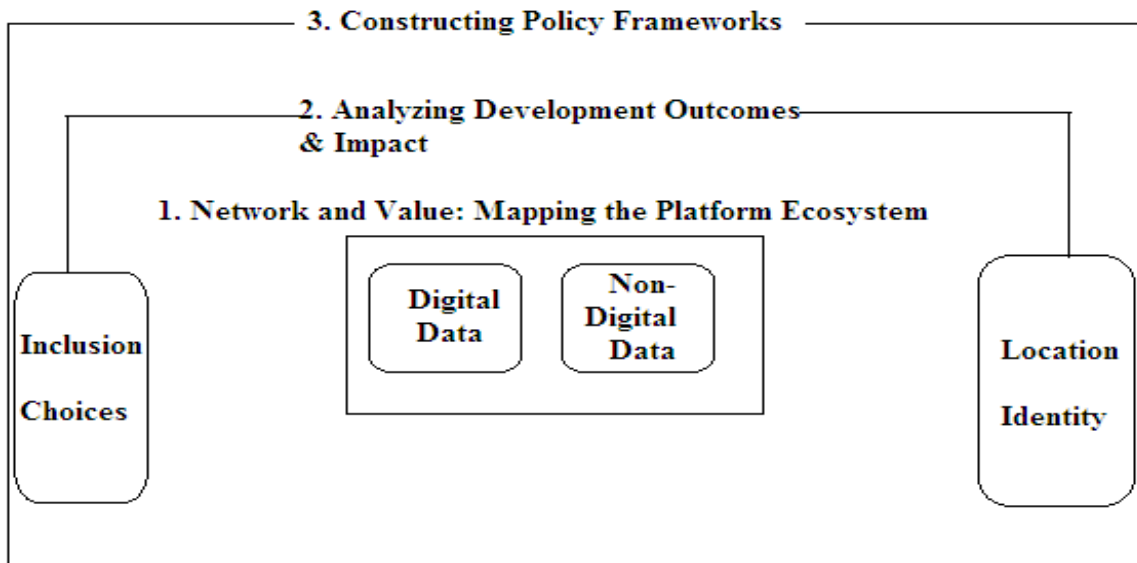
Figure 5 An Illustration of The Research Framework

Mapping of the above research framework provide the interaction with information infrastructures, technical protocols, and a unique access and control to grow the digital technology. Three critical layers of the framework require in-depth inquiry:

1. Digital and non-digital data to understand the platform ecosystem
2. Framework that constitutes the norm, rules, and practices of the platform ecosystem
3. Value extracted by/contained within the platform ecosystem

Conclusion

Digital technologies will become an integral part of everyday lives in organization and non-organization work routines and the impact of digitization enables digital transformation opportunities associated with digital technologies. The research framework will be applicable for engaging the information and communication technology with digital technologies that focused on both value network and digital economy. Sometimes these technologies might disrupt the business model and organizations to meet the digitization initiatives with integrated ICT. The developed framework plays a key role in the results of technology adoption and focus on enhancing the coverage and quality of digital services by integrating ICT with digital technology.

References

[1]. https://citeseerx.ist.psu.edu/document?repid=rep1&type=pdf&doi=38c44d476483c63e72c62be70b0920a8319bee95

[2]. Sivarajah, U., Irani, Z., & Weerakkody, V. (2015). Evaluating the use and impact of Web 2.0 technologies in local government. Government information quarterly, 32(4), 473-487.

[3]. Arturo Serrano-Santoyo, Veronica Rojas-Mendizabal (2017) Exploring a Complexity Framework for Digital Inclusion Interventions in Procedia Computer Science Volume 121, 2017, Pages 212-217 Cited at: https://doi.org/10.1016/j.procs.2017.11.029

[4]. Gimpel, H., Hosseini, S., Huber, R., Probst, L., Röglinger, M., & Faisst, U. (2018). Structuring digital transformation: a framework of action fields and its application at ZEISS. Journal of Information Technology Theory and Application (JITTA), 19(1), 3.

[5]. Gurumurthy, A., & Bharthur, D. (2018). Policy frameworks for digital platforms—Moving from openness to inclusion. Research Framework.