

Digitalization in Future Generation

Dr. S. M. Srilanga Meenakshi

*Assistant Professor of Commerce,
Manonmaniam Sundaranar University Constituent College,
Kadayanallur.*

Abstract

Digitization is the process of converting information from a physical format into a digital one. Digitalization is the process of leveraging digitization to improve business processes. Digitization is the process of converting information from a physical format into a digital one. When this process is leveraged to improve business processes, it is called digitalization. The results of this process are called digital transformation.

Keywords: Digitalisation, Labour

I. INTRODUCTION

Digitization is of crucial importance to data processing, storage and transmission, because it "allows information of all kinds in all formats to be carried with the same efficiency and also intermingled". Unlike analog data, which typically suffers some loss of quality each time it is copied or transmitted, digital data can, in theory, be propagated indefinitely with absolutely no degradation. This is why it is a favored way of preserving information for many organisations around the world.

Digitalization is the integration of digital technologies into everyday life by the digitization of everything that can be digitized. The literal meaning of digitalization gives an apparent idea of development and technology dependent world. Digitization is the process of converting analog signals or information of any form into a digital format that can be understood by computer systems or electronic devices. The term is used when converting information, like text, images or voices and sounds, into binary code.

In business, digitalization most often refers to enabling, improving and/or transforming business operations and/or business functions and/or business models/processes and/or activities, by leveraging digital technologies and a broader use and context of digitized data, turned into actionable, knowledge, with a specific benefit in mind. It requires digitization of information but it means more and at the very center of it is data.

While digitization is more about systems of record and, increasingly systems of engagement, digitalization is about systems of engagement and systems of insight, leveraging digitized data and processes. In general, digitalization is seen as the road of moving towards digital business and digital

transformation, as well as the creation of new – digital – revenue streams and offerings while doing so. And that requires change. This is why many people interchangeably use digitalization and digital transformation

II. OBJECTIVES

- To understand current scenario in future generation
- To study about digitalization in future generation
- To study about children in future generation
- To understand about future generation of adolescence
- To study about digitalization in future generation in India
- To provide conclusion based on the study

III. METHODOLOGY

Details and Information collected for the purpose of the study was collected from the secondary source viz., Websites, Published articles, Thesis and Dissertation, Journals, Magazines etc .

Current Scenario in Future Generation

The term digitization is often used when diverse forms of information, such as an object, text, sound, image or voice, are converted into a single binary code. The core of the process is the compromise between the capturing device and the player device so that the rendered result represents the original source with the most possible fidelity, and the advantage of digitization is the speed and accuracy in which this form of information can be transmitted with no degradation compared with analog information.

There is a common misconception that to digitize something is the same as digital preservation. To digitize something is to convert something from an analog into a digital format. An example would be scanning a photograph and having a digital copy on a computer. This is essentially the first step in digital preservation. To digitally preserve something is to maintain it over a long period of time.

Digital preservation is more complicated because technology changes so quickly that a format that was used to save something years ago may become obsolete, like a 5 1/4" floppy drive. Computers are no longer made with them, and obtaining the hardware to convert a file from an obsolete format to a newer one can be expensive. As a result, the upgrading process must take place every 2 to 5 years, or as newer technology becomes affordable, but before older technology becomes unobtainable. The Library of Congress provides numerous resources and tips for individuals looking to practice digitization and digital preservation for their personal collections.

Digital preservation can also apply to born-digital material. An example of something that is born-digital is a Microsoft Word document saved as a .document file or a post to a social media site. In contrast, digitization only applies exclusively to analog materials. Born-digital materials present a unique challenge to digital preservation not only due to technological obsolescence but also because of the inherently unstable nature of digital storage and maintenance. Most websites last between 2.5 and 5 years, depending on the purpose for which they were designed.

Many libraries, archives, and museums, as well as other institutions struggle with catching up and staying current in regards to both digitization and digital preservation. Digitization is a time-consuming process, particularly depending on the condition of the holdings prior to being digitized. Some materials are so fragile that undergoing the process of digitization could damage them irreparably; light from a scanner can damage old photographs and documents. Despite potential damage, one reason for digitizing some materials is because they are so heavily used that digitization will help to preserve the original copy long past what its life would have been as a physical holding.

Digitization can also be quite expensive. Institutions want the best image quality in digital copies so that when they are converted from one format to another over time only a high-quality copy is

maintained. Smaller institutions may not be able to afford such equipment. Manpower at many facilities also limits how much material can be digitized. Archivists and librarians must have an idea of what their patrons wish to see most and try to prioritize and meet those needs digitally.

Labour resources and funding also limit digital preservation in many institutions. The cost of upgrading hardware or software every few years can be prohibitively expensive. Training is another issue, since many librarians and archivists do not have a computer science background. Intellectual control of digital holdings presents yet another issue which sometimes occurs when the physical holdings have not yet been entirely processed. One suggested timeframe for completely transcribing digital holdings was every ten to twenty years, making the process an ongoing and time-consuming one.

But technological progress is also offering opportunities for marked transformation in most jobs and business models, including an increasing reliance on independent or online platform labour, improvement in skills anticipation and matching capabilities and improved diagnostics with the assistance of Big data and algorithmic decision making.

Digitalization in Future Generation

Digital technologies are helping utilities optimize their operations, giving them detailed, actionable insights, and more precise control over their assets. Utilities that use digital optimization will quickly improve power plant efficiency, reduce fuel costs, and increase power capacity, ultimately driving more profitability. They can also extend turndown while maintaining emissions compliance to improve availability, expand fuel flexibility and responsiveness, and decrease start times. Digital is also contributing to improved physical wellbeing. Emergence of digital health care and smart devices are assisting in disease prevention and management. With health trackers, people are proactively opting to manage their health and lifestyle. It will not be long before digital therapeutic technology becomes immersive and revolutionizes personal health management.

Digital technologies are not the culprit — it is how we use or abuse them. For example, generally, individuals who are socially active online tend to be socially active in their offline world and vice versa. Digital technologies may accentuate that impact. Children who actively engage online through hobby and interest groups tend to display more civic involvement and engagement offline. This is because children who encounter diverse backgrounds, gain confidence in dealing with strangers and broaden their skill set are generally more optimistic toward life.

While digitization offers advantages, such as the potential of working remotely and increasing efficiency, it also present concerns for millennials. Respondents cited a decrease in direct communication and fewer jobs as examples. One millennial said that a potential implication of a digital era would be fewer jobs available, adding, “it will be a luxury to have a physical workplace.” Additionally, the research showed an awareness among young people of the negative impact that digitization can create on leisure (20%). One millennial described the potential impact of a digital era by saying, “Digitization is forcing us to rethink work in general, even more with the rise of cognitive computing. We are going to see a shift in the skills we value.”

However, a recent article in the Financial Times highlighted that, while companies are increasingly trying to upgrade their technology in an effort to boost productivity, the link between digital and productivity is not yet apparent. Additionally, a recent article in the Economist highlighted that a consequence of the digital era may be to increase efficiency and to facilitate going about our daily jobs – a point that most millennials undertaking this research agreed with.

Digital media is so pervasive that consumers have access to information any time and any place they want it. Gone are the days when the messages people got about your products or services came from you and consisted of only what you wanted them to know. Digital media is an ever-growing source of entertainment, news, shopping and social interaction, and consumers are now exposed not just to what your company says about your brand, but what the media, friends, relatives, peers, etc., are saying as well. And they are more likely to believe them than you. People want brands they can trust, companies that

know them, communications that are personalized and relevant, and offers tailored to their needs and preferences.

Digitization is of crucial importance to data processing, storage and transmission, because it "allows information of all kinds in all formats to be carried with the same efficiency and also intermingled". Unlike analog data, which typically suffers some loss of quality each time it is copied or transmitted, digital data can, in theory, be propagated indefinitely with absolutely no degradation. This is why it is a favored way of preserving information for many organisations around the world.

The digital revolution touches all aspects of our human and physical world in many varied and constantly changing ways. Whether you wish to read the news, comment on line, watch a film, or buy insurance. We are highly connected through data and this connection has the capacity to empower citizens and enrich our lives. It is easy to take for granted this digital ecosystem and it is hard to imagine a time before it. Yet as an industry it is in its infancy when compared to printing or manufacture. And this is very clear when one starts to investigate the ethical and environmental impacts of digital. The industrial revolution took huge strides in advancing humanity, but it never intended to pollute our rivers or air.

Children in Future Generation

The term started to be used in reference to the impact the currently living generations have on the world future generations will live in, the world they'll inherit from humans living today. Current generations have a moral obligation to provide for sustainable living conditions not just to the future of their own children, but indirectly also to the future of their children's children. This is referred to in the most widely quoted definition of sustainability as a part of the concept sustainable development, is that of the Brundtland Commission of the United Nations on March 20, 1987: "sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

As a society, we're increasingly feeling the importance of technology's prevalence in our education institutions. Whether it is increasing awareness of the need for digital skills as the world of work evolves, or the expectation for digital natives to have access to the same technology they experience at home, there is an increasing need for education institutions to be more digital. That said, change is happening. In the capital alone, 13 universities already offer degrees in AI, machine learning and other related industries. The question is whether there is enough being done to develop digital skills at an early age. We need to engage children with these emerging technologies from a young age, and collaboration between the public and private sectors will be critical to achieving this.

Younger generations are growing up in a digital world. Their first phones are often smart phones, with a range of apps and functions; even toddlers are using tablets and screens to entertain themselves. We are introduced to technology from a younger age at home and expect to have the same interaction with it at work and at school. With only 33% of consumers believing that the UK is ready for a digital future, more needs to be done to make sure the people expected to inhabit it are ready. Working with the private sector is the best way for the public sector to harness the expertise, technology and real world experience needed to keep making digital education impactful and relevant. Not only does working with the private sector help give schools access to physical technology, but also to real world experiences and qualifications. In a partnership with examining body OCR, Fujitsu has developed a new A-Level equivalent qualification designed to prepare the next generation to become the digital workforce of tomorrow. The vocational course enables 16-18 year olds to apply their ICT, technology and mathematical knowledge through a project-based syllabus, preparing them to apply this same knowledge in their future career.

Working in collaboration with public and private sector, using resources available from the former and tech savviness from the latter, we can help our future generations prepare for a workplace that needs the digitally intelligent.

The education sector has a duty, along with the private sector, to provide students with the best possible start in life, equipping them with the most up-to-date and relevant education. It is therefore important that education takes up the challenge for digital readiness by providing them with the necessary skills early on. The world belongs to digital natives. Working in collaboration with public and private sector, using resources available from the former and tech savviness from the latter, we can help our future generations prepare for a workplace that needs the digitally intelligent.

India attained independence from the foreign rules close to seven decades back. But, still the internal independence is sought. Independence of expression and reaching out to the authorities appeared to be a distant dream until late but now after the initiative called Digital India it seems no dream is too big. India, in the last two decades has seen a new dawn with the help of computers and technologies. The coming of e-mails and internet has saved a lot of time and paperwork, in many ways it is a good sign as it will not only reduce the work hours but also make better the quality of work done eradicating the human errors and lags. Digital India is an initiative taken by the present Government of India to integrate the government departments and connect the people of India directly with all the departments to address the issues in a better way. It aims at ensuring that the government services are made available to citizens electronically by reducing paperwork and a lot of time. This initiative also includes plan to connect rural areas with high-speed internet networks. The project is scheduled for completion by 2019.

This will give the rural youth more opportunities to interact with people from different walks of life and evolve better as an individual. Digital India will empower youth to know the government and its various departments better and to analyze the loops and strength unguided by political issues. The user friendly interface will connect more people to technology and the platform will act as a thought-pool. The agro-based youth will also be able to gather more knowledge about the policies of the government and be benefitted by the same. More openings in the IT sector and more customer oriented openings for youngsters will be made available as the older generations are not yet tech friendly as the youth is.

The youngsters will be able to connect directly with the government departments just at a click of mouse or may be a press of a button. The middlemen will be eradicated and thus ideas and complaints will reach the higher officials directly in much lesser time and the matters will be resolved and addressed by the right people at the right time. With the coming of start-up venture supports, the youngsters will get a chance to demonstrate their enterprising skills with the help of venture capital provided to them. Research and training based projects will help youngsters to learn better and the digital platform will connect a wider talent pool to discuss and exchange ideas and innovative solutions.

The online mode of education will gain new dimensions and the rural youth which by far has no access or limited access to the various courses available, will be having a better learning experience. Last but not the least, E-commerce is better understood and utilized by the youth. In the past decade we have seen a number of business portals doing really well, enabling the goods being delivered at the doorsteps without much hassle and the same shall gain new horizons with more and more self employed people and e commerce sites coming in the Indian market allowing a higher income to the deserving.

Future Generation of Adolescence

Digital technology can be a game changer for disadvantaged children, offering them new opportunities to learn, socialise and make their voices heard – or it can be yet another dividing line. Millions of children are left out of an increasingly connected world. As digital technology rapidly evolves, so can the risks children face online – from cyber bullying to misuse of their private information to online sexual abuse and exploitation.

“In the digital era, we as young people assume the identity of not only citizens but rather netizens (a user of the internet) of the digital world. As the report highlights, the inequities of society are now beginning to mirror themselves in the digital space. A glaring digital divide prevents children and adolescents from LMIC’s accessing the services of the internet like their counterparts from other parts of the world. Furthermore, the report also highlights how young females who may be battling

the gender gap in their everyday lives also have to struggle to sustain a digital presence. Digital technology carries immense potential to solve some of the developmental challenges faced by young people. On the other hand, the negative consequences of the digital wave threaten the privacy of young people who may not be equipped with levels of digital literacy necessary to assess as well as adopt measures of protection.”

The next generation is one of the first to have grown up in a world where every aspect of their communication, entertainment, social activity, private and school lives are entwined with technology. Digital future refers to the idea that all businesses will operate digitally in the future. There are any number of reports available dictating the digital future of business. But before it becomes a meaningless buzz phrase, what does digital future mean. Starting at the top.

Digital transformation is the profound transformation of business and organizational activities, processes, competencies and models to fully leverage the changes and opportunities of a mix of digital technologies and their accelerating impact across society in a strategic and prioritized way, with present and future. Advantages of digital technology include easy access to information, improved communication and convenience in education. Digital technology promotes innovation and creativity, and typically ensures efficiency and productivity.

Digitalization: When digitalizing processes, it means that some digital technologies are being used in the processes and managing data digitally Process (digitized data and digitally native data), in order to convert processes (not simply digitization) into processes more efficient, more productive, more profitable. Adolescent growth and social development shape the early development of offspring from preconception through to the post-partum period through distinct processes in males and females. At a time of great change in the forces shaping adolescence, including the timing of parenthood, investments in today’s adolescents, the largest cohort in human history, will yield great dividends for future generations.

Digitalization in Future Generation in India

Digital India is a campaign launched by the [Government of India] to ensure the Government's services are made available to citizens electronically by improved online infrastructure and by increasing Internet connectivity or by making the country digitally empowered in the field of technology. The initiative includes plans to connect rural areas with high speed networks. Digital India consists of three core components: the development of secure and stable digital infrastructure, delivering government services digitally, and universal digital literacy.

The vision of Digital India is to transform the country into a digitally empowered society and knowledge economy. It would ensure that government services are available to citizens electronically. It would also bring in public account ability through mandated delivery of government's services electronically.

Digital procurement automates repeatable tasks to boost efficiency and reduce costs; it equips stakeholders across the business with real-time insights and analytics through artificial intelligence (AI) and easy-to-use online tools; it deploys new and smarter ways to infuse data models to enrich day-to-day operations and decision making.

Digitizing procurement is just the first step in an ongoing journey. It’s imperative that organizations start their digital procurement journey now to ensure they’re not left behind in the race for Digitization is the automation of existing manual and paper-based processes, enabled by the digitization of information; from an analog to a digital format. You'll notice that today digitization is indeed mainly used in a context of document capture and scanning, and in a context of digitizing business processes.

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In the next two to four years, we'll see the further evolution to next generation digital procurement, where data from outside a business's own ecosystem will provide even more advanced decision making.

The objective of the Digital India Group is to come out with innovative ideas and practical solutions to realise Hon'ble Prime Minister Narendra Modi's vision of a digital India. Prime Minister Modi envisions transforming our nation and creating opportunities for all citizens by harnessing digital technologies.

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Digitization is the conversion of data into a digital format with the adoption of technology. Adoption of digitalization is very important for the banking sector. By embracing digitalization, banks can provide enhanced customer services. This provides convenience and helps in saving time. Digital banking is there to customers digitization (or moving online) of all the traditional banking activities and programs that historically were only available to customers when physically inside of a bank branch. This includes activities like: Money Deposits, Withdrawals, and Transfers.

Digital banking involves high levels of process automation and web-based services and may include APIs enabling cross-institutional service composition to deliver banking products and provide transactions. It provides the ability for users to access financial data through desktop, mobile and ATM services. Digital Transformation is far beyond just moving from traditional banking to a digital world. It is a vital change in how banks and other financial institutions learn about, interact with and satisfy customers.

IV. CONCLUSION

While digitization offers advantages, such as the potential of working remotely and increasing efficiency, it also present concerns for millennials. Respondents cited a decrease in direct communication and fewer jobs as examples. One millennial said that a potential implication of a digital era would be fewer jobs available, adding, "it will be a luxury to have a physical workplace." Additionally, the research showed an awareness among young people of the negative impact that digitization can create on leisure (20%). One millennial described the potential impact of a digital era by saying, "Digitization is forcing us to rethink work in general, even more with the rise of cognitive computing. We are going to see a shift in the skills we value."

There is a general sense that while the internet still offers great opportunity and that many, particularly in the developing countries see the internet as an important means to empower communities, there is also a strong sense of disillusionment with what the internet brings. The tool that was, in the words of one participant, supposed to democratised society is now being used as a means for its control. This disillusionment is felt even more profoundly in developed countries where the internet is on the cusp of changing significantly through new technologies and persistent security challenges.

The most important theme running through the responses is the imperative of putting the human, the user, first. Above all there is an unshifting conviction that the internet must continue to benefit people and create new social and economic possibilities, thereby fulfilling the premise on which it was built. Hyper connectivity promises to reshape business, public services and other entities through greater efficiencies, immediacy, reach and delivery. With more

comprehensive and effective data collection, analysis and use we can expect revolutionary change to come to healthcare, education and other services, but none of this will be of any value if people are not the ones who benefit.

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