

**DIGITIZATION AND THE CHANGING SPIRIT OF
EDUCATION IN INDIA**

Dissertation submitted to Jawaharlal Nehru University

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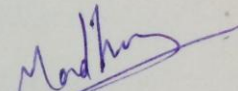
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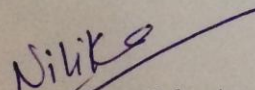
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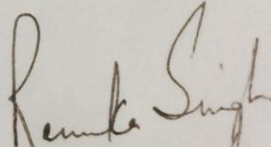
This is to declare that the dissertation entitled "**Digitization and the Changing Spirit of Education in India**" submitted by me in partial fulfillment of the requirements for the award of the degree of Master of Philosophy, at Jawaharlal Nehru University, New Delhi, is my own work. The dissertation has not been submitted in part or full, for any other degree or diploma, either at this or any other university.


Madhu Bala

CERTIFICATE

We recommend that this dissertation be placed before the examiners for evaluation.


Prof. Nilika Mehrotra
Chairperson


Prof. Renuka Singh
Supervisor

*The Dissertation is dedicated to
Centre for the Study of Social Systems
Jawaharlal Nehru University
For
Inculcating the vision of "SOCIOLOGY" in my personality...*

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ABBREVIATIONS

AISHE: All India Survey on Higher Education

ICT: Information and Communication Technology

INSAT: Indian National Satellite

ISA: Ideological State Apparatus

IT: Information Technology

LPG: Liquefied Petroleum Gas

MCD: Municipal Corporation of Delhi

MOOC: Massive Open Online Courses

NPTEL: National Programme on Technology Enhanced Learning

PCO: Public Call Office

STD: Subscriber Trunk Dialer

SWAYAM: Study Webs of Active-Learning for Young Aspiring Minds

TV: Tele Vision

UGC: University Grants Commission

US: United State

INTRODUCTION

“Ogburn studies Culture as a source of invention of technology, while Baudrillard studies technology as a creator of hyper real culture¹.”

These are two different perspectives on technological advancement and new media in relation to changing the culture. In sociological studies, technology has been studied from multiple perspectives which could be seen in the writings of H. Marcuse, M. Castells, T. Adorno, W. C. Ogburn, J. Baudrillard, M. McLuhan, Z. Bauman and so on and so forth². These social scientists were writing from different perspectives on technology but all of them focus on the concept of technology and tried to make an attempt to understand its nature in relation to socio-cultural reality. ‘Medium comes with a message’ and this idea is conceptualized by M. McLuhan, who provides a lens to look at the change comes in society with every new medium or technological intervention takes place³. McLuhan derives this understanding from a famous historian H. Innis who forms his understanding on forms of technologies of

¹Baudrillard J. and Ogburn W. J., are social scientists who have worked on the topic of technology and produced distinct books namely; Baudrillard, J. (1998). *The Consumer Society: Myths and structures*. Sage publication, London. Pp. 208 and Allport, F. H. (1924). *Social Change: An analysis of Professor Ogburn's Culture Theory*. *The Journal of Social Forces*, 2 (5), 671-676.

²Social scientists, who have developed a sociological enquiry on the topic of technology and have noticed its relation with society and its institutions. Different school of thoughts includes; critical schools, structural and functional perspective, media and communication and modern and post-modern perspective at large.

³McLuhan, M. (1964). *Understanding media: The extensions of man*. New York: McGraw-Hill.

communication and how does it work in a time-space dimension⁴. The idea to mention about these social scientists here is to introduce the focus of this study, which is the sociological study of the new form of information and communication technology and its relation to society at large and its institutions for a specific study.

From ancient times, the cultural and social change is observed and highlighted in different sociological inquiries and 'Historical materialism'⁵ is one of those critical social inquiries. It observes a different mode of inquiry to understand the social change and power relation. According to this, the mode of production changes the society in terms of its political, economic and cultural dimension and it traces the social change from primitive society to Industrial revolution. When the Industrial revolution was taking place, at the same time new classes were emerging which made a shift in the mode of production and gave birth to new production relation. The hierarchical relation remained visible between bourgeoisie and proletariat who were the two classes emerged with effect of the industrial revolution which is mentioned in writings of by Marx and Engels (Ritzer, 2008)⁶. The patterns of lifestyle in each of those classes were totally different and that gap between the two classes was based on their material conditions created by the type of work. It highlights the role of technology in the deteriorating conditions of proletariat class. The need to mention

⁴Innis, H. A. (1964). *The Bias of Communication, Intro*. Marshall McLuhan. Toronto: University of Toronto Press.

⁵Historical Materialism is the concept presented in the work of Lenin and Marx who have traced it from Hegal's dialectic theory and extend it critically from a historical perspective in the context of materiality of the particular time frame. For further reading, we can see; Moore, S., & Moore, S. (1975). Marx and Lenin as Historical Materialists. In Brenkert G., Buchanan A., Cohen G., Gilbert A., Husami Z., Miller R., et al. (Authors) & Cohen M., Nagel T., & Scanlon T. (Eds.), *Marx, Justice and History: A "Philosophy and Public Affairs" Reader* (pp. 211-234). Princeton University Press.

⁶George Ritzer. (2008). *Modern Sociological Theories*. 'Varieties of Neo-Marxian Theories; McGraw Hill, Boston, New York, pp. 139- 163.

about technology was highlighted in terms to notice the immediate relation of technology and social change highlighted in the writings of K. Marx. As cited by B. Chandra (1981), who writes about the technological interventions in Colonial India when technological intervention takes place in India and shows his futuristic concerns for the upcoming change in society e.i. Industrial setup reinforcing capitalism and exploitation of 'proletariats'⁷. These Marxist writings about technological intervention in India do not only highlight the impact of technology but also the concept of 'Private Property' with regard to Industrial setup establishing at that time. The ownership of the means of production entitles the owner with plenty of power and this makes the idea of private property very important to be studied, when we attempt to study 'power of technology' in the industrial society⁸.

The concept of power is not limited to the economic superiority only, which Marx highlighted the most, while forming arguments about the economy as the base structure but Weberian analyses helps to stretch this idea further and conceptualized as 'status'. When we understand the concept of 'possession', we can extend the idea of power in the form of 'status'. This idea highlights the concept of 'status' which is contextualized here. Weber mentions about the status that one can critically understand the superiority of a particular group in comparison to others and this Weberian rationality is beyond the economic understanding of Marx but close to the idea of power. To critically understand the Weberian notion of rationalization Turner cites from his writing and I quote; "In Economy and Society, Weber was explicit in

⁷ Bipan Chandra's writing on railways. Karl Marx, His Theories of Asian Societies, and Colonial Rule. Review (Fernand Braudel Center), 13-91.

⁸ Brenkert, G., & Brenkert, G. (1980). Freedom And Private Property in Marx. In Buchanan A., Cohen G., Gilbert A., Husami Z., Miller R., Moore S., et al. (Authors) & Cohen M., Nagel T., & Scanlon T. (Eds.), Marx, Justice and History: A "Philosophy and Public Affairs" Reader (pp. 80-105). Princeton University Press.

his argument that the expropriation of the workers made rational calculation of capitalist activities possible, increased managerial rationality and created ‘the most favorable conditions for discipline’ (Weber 1978:1, 138 cited in Turner, 1992, p.177). So, the idea of private property, status and rationality could form a connection which is highlighted in the arguments listed above. From these connections the sense of power can be seen percolating out of the ownership of technology.

In Indian context, the writings of D. Gupta highlight ‘phenomenology of caste’ where he observes a structural shift on the basis of economic status rather than traditional ritualistic status and he reflects that different shades of superiority and inferiority exist among such groups which are beyond the four-fold classification of caste⁹. His idea about caste in contemporary India reflects a structural change with effect of mobility in class status among different caste groups. Highlighting the deepening of the concept of existing structural reality, which debunks the four-fold classification of caste system, and hierarchy in India, however locates it as a deeper reality than the understanding of M.N. Srinivas on caste system in India. The critique of M.N. Srinivas by P. Samarendra emphasizes about the hierarchical structure at local lives of caste system in villages and mentions about sub-castes or *Jaati*, or the existing hierarchy amongst *Jaatis* (Samarendra, 2016)¹⁰. This important critique on changing structural reality of caste system indicates the role of ‘status’ earned from the nature of their work among the lower caste groups i.e. *Jaati* and sub-*Jaati*. So, all the arguments here draw attention to the concept of status and its relation with possession

⁹Dipankar Gupta (2005). Caste Today:the relevance of a phenomenological approach, *India International Centre Quarterly*, Vol.32, No.1, pp. 138-153.

¹⁰Padmanabh Samarendra (2016). Local *jatis* and pan-Indian caste: The unresolved dilemma of M.N. Srinivas, *Contributions to Indian Sociology* 50, 2 (2016): 214–239.

of contextual means or attributes in the real sense of the word. The analysis of techno-culture critically examines the idea of status, power and private ownership.

When it comes to revolutions, it gives new shapes to the existing structure of present society where the alteration in political, social and economic structure becomes quite visible. In the late 20th century the Digital Revolution took place which caused drastic change in the social, political and economic structure and in contemporary India, it is intruding on entire society. It is trying to get into each and every sector through digitization of information and communication technology. So, this sociological study is a painstaking examination of digitization, which is spreading digital culture through the information and communication technology. This study is duly obligatory to highlight the systemic change, which has been observed and the socio-cultural change, in reality, is overpowered by the structural change caused by the 'Digitization of Informant and Communication Technology'. M. McLuhan's perspective, which this study introduced above, has been borrowed to observe the 'Digital Revolution' taking place in Indian Society. This caters the need to understand the effects made by changing media and technology on society, but it does not give us the vision to think about what are the further possibilities of change by a particular form of technology and media which certainly Harold Innis emphasizes in his writings whom McLuhan follows¹¹.

In critical theory Marcuse writes about technology and identifies it as a transmitter of irrationality that reflects upon the social dimensions of change. According to him it makes society to live in a different kind of social structure where a person limits the

¹¹Harold Innis (1964). *The Bias of Communication*, Intro. Marshall McLuhan. Toronto: University of Toronto Press.

vision to understand the world from one perspective¹². Marcuse refers to the Industrial era, and forms his argument that the society is hierarchical at the level of technological ownership. This ownership was in hands of upper class which used to control the means of production as well as the labor to maximize the profit. This further creates a large group of proletariats who used to operate the technology used for production and their capacity to work used to be accelerated till the exhaustion level and the idea of rationality of worker would be reduced to the idea machine. The idea of one dimensional society is understood in this light where technological rationality reduces the thought process and presents the reality from the lens of the owner and this one dimensional society is a result of technological advancement which controls your rationality and criticality to make out the difference between the human and machine. This perspective was raised in the context of industrial society and workforce but the new media and technology have different contextual and critical reality (Ritzer, 2008). For this study the contemporary context of the idea of technological advancement which is seen as a revolution of information and communication technology with the digitization process will be presented and the core argument is based on the ‘power of digital technology’ on human rationality.

The rationality debate is not limited to the understanding of Marcuse but Habermas has also mentioned about ‘Communicative Rationale Action’¹³. He not only gets influenced by K. Marx but also by Weber’s idea of ‘Purposive rational action’ to critically understand the rationality for the modern capitalist production and technological forces. All these views are making a composite reality of technological

¹²Marcuse H. Writes in the book ‘One dimensional man’ and characterized and critically understood the concept of rationality overpowered by technology which is creating a particular kind of living.

¹³‘Communicative Rationale Action’ is a concept propounded by Habermas, who was acknowledged as a part of Frankfort school and have written over rationality and communication action and public sphere.

intervention and rationality debate and also highlighting it in a context of modern societies which broadly reflects these changes. Apart from this modernist understanding, post-modernist views make a different observation about the technologically advanced societies. Baudrillard has raised his views about this consumer society and the emerging hyper-reality through the effects of simulation and simulacra (Ritzer, 2008; Baudrillard, 1964). On the other hand Foucault, Latour, and Bauman narrate it differently; Latour's understanding makes a critical commentary after analyzing the idea of modernity which debunks the process of development rather in his analysis, he identifies the ontological reality which is the existing reality and no such modernity exists in society which he elaborates in his book 'We have Never been Modern',¹⁴ and he had been critically writing about the 'actor-network theory' which presents the idea of ontological reality and the relation of actor and network, (Latour, 1993). Foucault's pos- modernism is critical about 'technologies of self'¹⁵ and it's widely concerns for human self for which the development of entire civilization is taking place. However, it finds no signs of modernity in the project of modernity rather he repeatedly criticizes all the modern technologies made in the name of modernizing lifestyle, are deteriorating man in reality (Martin, 1998). Z. Bauman has been consistently writing about modern societies and media and technology. He questions the influential power of technology on society at large. He criticizes the social media in this digital age which is capturing people's life and helping creating an imaginary world for people and the liquid nature of this modernity and rationality is highlighted by Bauman. He examines the fragility of this modernity

¹⁴'We have never been modern' is a book written by Bruno Latour, 1993. Harward University Press,.

¹⁵Martin, L.H. et al (1988) Technologies of the Self: A Seminar with Michel Foucault. London: Tavistock. pp.16-49

which he considers as highly influenced by the new technologies and termed it as Liquid modernity (Bauman, 1987).

The 'Digital' impact on socio-cultural reality can be observed from multiple perspectives. From Technological determinism, it provides a very positive picture of scientific research, innovation, and development. But from the complex web of social, economic and political perspective the impact of new digital media is not benevolent. Rather the picture becomes darker and somehow negative from the perspective of historical development. It has been noticed that the change comes in the in the 'media and technology' influence the communication at the level of society and cultural practices. Studies done on radio and television, it was generalized by some sociologist, economist, media researchers, and philosophers that the impact of new media and technology on society is more than any other means of change.

The history of technology seems reflecting the role of technology in social development but a critical perspective also generates a rationality towards the use of it and it is also suggested by theorists that why technology is being useful for some but not all the human beings. The social shaping of technology is another perspective which reflects the technology as transformed and amalgamated into a social aspect of technology. Technology is a scientific creation but when it interacts with society, it adopts and incorporates the maximum characteristics of society and social shaping takes place. It limits the ways in which it can be used. To conclude this theoretical discussion on this topic Kellner's remark over technology is quite contextual which George Ritzer cites and I quote;

"Techno-culture represents a configuration of mass culture and the consumer society in which consumer goods; films, television, mass images and computerized

information become a dominant form of culture throughout the developed world [and] which increasingly penetrate developing countries as well. In this techno-culture, image, spectacle and aestheticized commodification, or “commodity aesthetics,” come to constitute new forms of culture which colonize everyday life and transform politics, economics and social relation. In all these domains, technology plays an increasingly fundamental role.” (Kellner, 1989c: 181, cited by Ritzer, 2008: 157).

The multiple perspectives introduce us to the importance of technology in the social domain but this research is specifically on the Digital form of technology which is popularly existing in society and making a change in the socio-cultural domain. It is present in the form of information and communication technology which is highly influenced by a purposive communicative action and there must be some message created by this medium as well which this research formulates further in the inquiry. This research is to understand the idea of the digital form of technology as a new medium, and its relation to the social and cultural pattern in which people encounter with this medium of interaction. This relation is not limited to the inquiry of this new form of technology known as ‘digital’ rather it analyses the historical tracing of technology to find out the different equations of this particular form of technology in the context of ‘time and space’. In the above listed theoretical writings it observes and investigates the whole lot of arguments on society, culture, and technology but this research specifies the inquiry on the contemporary technological advancement and its direct relation to the social institution ‘Education’.

The specificity to highlight the need to look at education separately is to understand the changing form of society as mentioned by social scientists who have written over

the idea of rationality and modernity and those who have been criticizing technology for the irrational human society. The role of knowledge and social change comes at surface and we cannot escape from the modern education system and the idea of knowledge economy becomes two contradictory views. When technology is turned as a changing force, then the education is perceived as a scientific knowledge production institution, that requires a critical inquiry. Considering Althusser's idea of "Ideological State Apparatus" education as an institution is very important in this emerging technocratic Indian education system. In the era of rapid technological changes, education becomes a very crucial institution of society in both facilitating the changes as well as pointing to the limits of the power of technology. The present study proposes to look at education as a social institution and as such its nature in the face of the introduction of the digital technology in the educational arena.

When we go deep into the dialogue about importance of education in society, there is a lot of literature in defense of that but what kind of education is provided to society is a matter of critical thought which also critically debated by many sociologists and their views are contradictory in nature but sociologically important to locate the social and cultural change with the education. Durkheim raises the importance of looking at the need of education for society and Bourdieu investigates the practice and finds out the discriminatory nature of knowledge production and distribution system. While revolutionary Illich debunks the institutional practice to provides education as he finds school system as a site of reproduction of inequality and therefore one should rather get the knowledge from the alternative modes which will help generating he knowledge system for better life. In looking at different perspectives on education this study catches the relationship between the society, culture and education. As the social ideals of non-discriminatory education and universal provision of education has

been a matter of intense sociological, political and economic debate. It is in this milieu that digital technology has been forwarded as an effective media facilitating non-discriminatory education which also demands a critical inquiry. We cannot forget to ask the critical question at the first place about what education is. Why are we getting education? And lastly, what is the role of education in society?

This research goes deep into the inquiry of above mentioned questions and draws an outline based on some more important concerns which are catered here. It also investigates the reach of the digital form of technology to see whether it is creating a mass culture or just popular culture? Is digitization a conceptualization of social change or just another technology as mentioned by Kellner that technologies changes over time with effect of cultural patterns. How deep is the impact of Digitization and what are the possible reasons for it?¹⁶ Is 'Technocratic' system demanding another kind of society and why society is largely influenced with this technocratic system? Is the spirit of education becoming technocratic?

The above-listed queries are the sub-focus of this research that requires a sociological inquiry.

Limitations of the study:

This study is an extensive study as mentioned above but there are certain limitations which are a part of this research design as it is a qualitative largely based on secondary data hence the empirical proof and database is not present to justify the theoretical claims in the context of this study. Another important point to mention

¹⁶Kellner, D. (1995). Mapping the present from the future: from Baudrillard to cyberpunk. Media Culture.

here is, the study involves a small exposure but that is not in context of my second variable “Education” which also requires empirical support from the data gathered to highlight the empirical reality. Education in context of this technological advancement is argued on the basis of studies previously done but the transformation of culture and the relation of mass culture it could be studied if it would be a field-based research. Apart from these major highlights some small hurdles were there which is the time-constrain that made this study to get over in the period of one year and this topic “Digitization” in sociological study is ignored and hence scarcity of secondary data from India was one of the important limitation and hence the references also includes the study from west and science and technology study. The sociological study takes reference from science and technology study but analyses it from the sociological lens. The triangulation of three major areas namely Technology, Education and Society are the major focus of the study which limits this study to go deeper in one concept as here the connections between these three was the requirement.

Objective of the Study

- To find out the reason of spreading “Digital technology” in India at a faster rate than older forms of technologies in context of ‘Mass Culture’.
- To understand the dynamics of this coming socio-cultural change in society in context of rigid structural reality of Indian society.
- To understand the idea of technological modernity in India in context of ‘Digitization’

- To formulate an understanding of ‘digitization, technocratic-rationality and knowledge society’ in contemporary India to highlight the relation of State, Education and society.

Research Questions

- What kind of social change this new form of technology known as ‘Digital’ is bringing to society? Is it limited to popular culture or formulating a Mass culture?
- What is Indian modernity in context of ‘Digitization’ and how is it changing the traditional system in India?
- How ‘Digitization’ is turning society into a technocratic knowledge economy and the emerging impact on rationality and criticality.

II

Methodology

This research is an extensive study of the digital form of technology and the process of digitization highlighting the emerging Digital culture in society and its relation with social institutions. It explores the concept of digitization and its impact over life of people which is becoming techno-social and its direct relation with the change in education and knowledge system. To find out the related respective queries which are mentioned above this research has been based on a qualitative study of the agent of

social change popularly known as ‘digitization’. This research borrows the historical and sociological ground for its methodological underpinning to acknowledge the historical relation of the phenomena in the context of social change. The historical sociology is not based on the history of particular concept rather its existence or relation at a particular time zone. Here the analysis is taking a post-modernist approach to highlight many arguments in contemporary time-space dimension but those arguments have already set a stage for further analysis through this historical methodological approach.

In this context, the method for inquiry which is used for this research is ‘hermeneutics’ that put forth a critical analysis of the a-priory conceptualizations and the existing perceptions of phenomena. In this study, the rationale behind choosing this method is that the research is largely based on secondary database and the secondary database which is already providing a sociological perspective of particular phenomena i.e. ‘digitization’. Digitization comes under the broad study of technology, which is an agent of contemporary changing reality of information and communication technology in India. It requires a critical objective inquiry to highlight the process of change in the subjective fact existing in society and for that this study includes a small exposure to the field which could substantiate the counter-argument for the same. This technocratic cultural reality will be changing the ontological understanding about education, which is the specifically focused in this research that requires a critical inquiry, which goes beyond the historical database available on this topic and highlights the relational sociological outcome through this study.

The research as mentioned above is majorly taking reference from secondary database and for that textual analysis is the technique, which will understand the a-priori

knowledge and will contextualize in the contemporary socio-cultural reality. For data collection, the secondary resource includes books, journals, periodicals, magazines, newspaper, archival resource, government records, and internet sources will be used.

The secondary literature forms an understanding of particular reality but for counter-argument as mentioned above a small exposure to the ground reality was formulated through this research. The changing 'digitized' socio-cultural reality is correlating with the secondary database or not, was identified through the in-depth interviews conducted on the decided field. For the in-depth interview, we use an interview guide which helps to formulate the argument in a structured way and maximum utilization of this exposure can be attained. This research highlights the ground reality of those groups who belongs to the lowest strata of Indian society, identified as 'Homeless'. The category of homeless people in society is the one who usually categorised as migrants and stays in a temporary settlement at the roadside, under flyovers or any other abandoned place. They stay nearby the place where they find some work and can fulfill their basic necessities. For understanding the changing Indian socio-cultural reality, this category was chosen as in the economic hierarchy they come at lowest level, which do not have basic livelihood facilities and they are the target group for study as they live in extreme poverty conditions. This exposure is included in this research to make a check on the a priori knowledge about a particular phenomenon and to generate updated insights regarding that as the purposive social action suggests in other words to measures the impact factor of particular phenomena in a contemporary reality.

III

Chapterization

Chapter one:

Chapter one is the historical tracing of the technological development in India and its socio-cultural dimension which is not only drawing attention over the relation of technology with society rather its scope of creating a culture with its own influence. This chapter has a detailed study of the conceptualizations which highlight the process of socio-cultural change in society and then highlights the emerging conceptualization known as digitization. It traces the history of information and communication technology within the two important time-space dimensions. The understanding of looking at emerging culture is formulated in this chapter specifically studying 'culture'. Culture is a term which contains a number of components like food habit, entertainment, art and craft, lifestyle and so on. In anthropological studies we find researchers to locate culture from different aspects such as gift culture mentioned in Malinowski's work, play culture mentioned in Radcliff Brown's study, and Kula ring explaining the marriage culture. With the help of these studies, we can suggest that it is difficult to understand any culture by studying any single aspect of the same. There is the possibility of the existence of singular culture as well as multiple cultures at a point of time as mentioned by Franz Boas. One needs to locate how a group participates in particular activity to turn it into a culture as writings on mass culture and popular culture make a distinction. So, the overall analysis is clarifying the emerging culture of digitization and the historical studies elaborate on how the socio-cultural change takes place through different factors in which westernization and modernization reinforce the technological advancement. Ogburn's ideas over

technological innovation are important to trace a perspective over the process of cultural change with effect of new media and technology. But the important part of this chapter is to understand the technology in the time and space frame which concludes the discussion over the distinct features of 'digitization', which demands a further inquiry to locate this culture in the Indian society and map out the impact over society at large. The understanding based on this dimension of 'time and space' lead us to categorize the term 'Digital' under the broad framework of social and cultural change.

Chapter Two:

Chapter two is about the next level of inquiry with regard to the conceptualization of 'digitization' formulated in chapter one. It starts with the very basic concept of learning and development and its relation to the digital cultural in the surrounding. According to different personality development theories and theories of learning and development consider the role of the social and cultural environment as essential. Researchers like E. Erikson and J. Piaget who have given the stage theory where the child acquires a certain level of development and then reaches to the another stage. Vygotsky focuses more on part of 'culture' in the learning and development of personality. In the previous chapter, we mention how the culture is created and the role of consumption is also notified of a fact in the evolution of a particular culture. This chapter also caters the evolution of emerging 'Digital culture' and the related factors which make this process influential for different social science research as it has a direct link between the advancement of technology and social change in the form of change in society and human personality. The idea of human development

involves a complex process as there are different components which are important in this process such as socialization process is surrounded by family and kinship, culture, peers, education and institution and most important is the active role of learner. From these factors, the culture is essential as all other factors are also dependent on that particular concept. In light of the learning process of a child, we need to understand how this learning process takes place, the role of culture and its impact on human personality from a psycho-social perspective. These thoughts outlined above are only the post-facto analysis but the critical inquiry and field notes are the important part of this chapter as it formulated the critical inquiry which breaks the pre-formed notions about an agent of social change and also the social structural change in the society with effect of post-modernist approach of society towards the digital form of technology. This chapter includes 'psycho-social' framework to study the socialization practice and trends in cultural transition to interact with the data collected from the field. The analysis reflects many points that the idea of 'Digital Native' is explored from the socio-cultural approach to study the development. A new emerging Digital Culture requires an analysis for that purpose to understand the relation of Digital culture to human development. In this chapter, the focus is only limited to the human development as the project of modernization with the effect of Digital culture which analyzes the difference in generations who are interacting with Digital technology. What are effects of the changing culture on changing generation in society? A psycho-social inquiry is done here to find out the difference between Digital Native and Digital Immigrant. Modernization is not limited to the material culture or popular culture but in the digital age the culture is mass culture and the force of digitization has been explored in this context to locate the changes in society. I am not focusing on what we are getting but rather on how we are getting and the

impact of that change in the system of dealing with things in the Digital age. This digital culture which is celebrated by people has impacted them with a great effect. To cater these arguments this chapters incorporates largely Z. Bauman's thoughts on liquid rationality which certainly nailed into the idea of 'Mistaken modernity through Digitization'.

Chapter Three:

The third chapter is the final chapter which specifies the study and builds up the argument on the basis of the analysis done in previous chapters. In this chapter Education as a focus of the study is traced that is encountering a great shift in the core of its vision and the changing idea of the knowledge society is shifting toward the making of a knowledge economy which is the goal of this whole project of 'Digital India'. In order to analyze the relationship between nature of Digital technology and the change in education, the present work shall try to use the functionalist perspective of technology as applied to understand the meaning of education and the need of education for society. The idea of education and its process, i.e., the behavior of the learner, learning process, and pedagogy, are the changes which are the visible and we can consider those as 'physical change' in the education practice but the 'chemical change' or to which this chapter introspect as a spirit of education is the change in the perception towards education which is turning from knowledge to information acquisition, from emancipation to skill development, from 'education for life' to 'education for livelihood'. The overall changing spirit of education with the influential changes in structural or systemic change with the digitization is explored in this chapter. The final chapter sums up the whole story of digitization taking place in

society and the emerging culture of digitization and locate it in our day to day life and culture. This deep involvement has been spread as a modernization and development project but the way it is interacting with society and people is setting up a stage for people to perform like a puppet and the popular need for economic generation is curbing the need to make people critical-rational being rather the education in digital age is serving as a labour producing institution and the spirit of education is changing from making of a knowledge society to technocrat's knowledge economy and it discusses it with support of the secondary data analysis.

Conclusion:

The study concludes its arguments and its theoretical justifications with secondary data which was highlighted in all three chapters that "Digitization" is coming as a new agent of social change which demands a critical inquiry. The study critically analyzes the idea of development in the information age where "Digitization" is promoted as revolutionary force with the technocratic vision in India and the other socio-cultural realities are being ignored while supporting the idea of "Digital India" to reinforce skills and information to make it a knowledge economy. The answer we get from the historical tracing of communication technology in India and by making deep connection with the theory of technology helps us understand the cyclical process of reinforcement of social shaping of technology and technological shaping of society under the technological advancement effect. This also leads to formulate the connection between the content of technology and the form of technology with effect of that it helps to trace the power of "Digital" as a form of technology and medium of information and communication being a newest form of technology. This

conclusionary remark was derived with a critical study of H. Innis's theory of 'Bias of Communication'. Apart from this, when we trace technology as an agent of social change the contemporary reality in India and at other places helps to find out the changing culture with effect of "Digitization". It is also happening because of the content and form of technology is superior than rest of the older forms and "digital" itself has a deeper impact factor as McLuhan's research on Media and Bauman's understanding gives another insight to grab the connection of this social change and cultural reality but the rigid structural reality is becoming more rigid and that is because of the social-shaping of technology and the consumerist hyper-reality effect at core works and overpowers the change in structure and decrease the rationality. At last this study make a final analyses over the "Digitization and Education" where it finds out that the increasing technological dependence is making a great shift in the idea of education. "Digital India" program has promoted to masses but with a changing spirit and that is increasing the technocratic attitude of learners not inculcating the democratic values for which Dewey was arguing and Durkheim concerns to highlight the need of education for society. This digitization in India is taking place by ignoring its structural and functional reality and only focusing to compete with global powers but this will lead a deeper inequality in society as the skills and information will not make critical or rationale citizens rather at the end only certified labour will come out of it. This is a bigger concern based on the empirical reality where the larger population which hardly meets their basic needs are becoming part of "Digital India" and hence could not able to end their state of poverty and unemployment. Over and above it will also increase the quantity over quality as the idea of technology works as an extension of man but this time "Digital" form of technology is very strong and it is working as extension of human rationality with

effect of its content. Education is changing its spirit and becoming technocratic and in a democratic country like India it needs research before implementation.

Chapter- 1

Digitization and Culture of Digital Consumption

“Technologies are both products and producers of culture”¹⁷

The above-quoted words are providing the best direction in the context of our study of culture and technology and its relation to cultural change. This requires a comprehensive start with the elaboration of different meanings of culture; in the evolutionary perspectives, culture is popularly studied by anthropologists and an English anthropologist Edward B. Tylor¹⁸ who has provided the definition of culture for the first time, in his book called ‘Primitive Mind’. He defines culture as;

"that complex whole which includes knowledge, belief, art, law, morals, custom, and any other capabilities and habits acquired by man as a member of society." –E. B. Tylor¹⁹

Tylor’s definition of culture was celebrated as it provides a scientific lens to the study of culture and later on many others have raised the criticism of it. F. Boas was popularly known for divergent perspective on culture. He criticizes E. B. Tylor by saying that Tylor understood culture as a universalistic value that shows a singular

¹⁷Caron, A., & Caronia, L. (2007) well said that technology is the product and producer of culture. It was said in the context of his work done on the mobile phones and its use in cultural and social context. The anthropological work is well conceptualized by both the author of the book named- Moving culture: mobile communication in everyday life.

¹⁸EB Tylor was an Anthropologist, who became famous in 1871 with the publication of Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Language, Art, and Customs.

¹⁹Robert H. Lowie, Edward B. Tylor. American Anthropologist, New Series, Vol. 19, No. 2 (Apr. - Jun., 1917), pp.262-268

conceptualization, whereas for Boas conceptualization of culture was plural²⁰. The new idea got popularity and this emerging field, the study of culture got different perspectives to be studied from. The field of inquiry and the pluralistic perspective of culture started from anthropology and later on many psychologist and sociologist also studied culture and cultural change.

When social change is studied one must look into the cultural change to understand the whole process involved. There are many social scientists who have studied the process of cultural change from different perspectives and narrowed it down to the Indian context. Referring to the popular work of Y. Singh titled 'Modernization of Indian Tradition'²¹, who has incorporated and traced those different perspectives which study the social and cultural change. The idea of social change is broad and there are many conceptualizations and approaches to study it but all the approaches focus on the process of cultural change at the core. To name those conceptualizations he mentions M. N. Srinivas who has coined the term '*Sanskritization*' in his study of *Coorgs* in Mysore. Along with *Sanskritization*, he mentions 'westernization' as the second important term to study the cultural change in India. Both the terms have great value, within the context of Indian society²².

Sanskritization has been interpreted by many sociologists from different perspectives and that interpretation made this term complex. E. B. Harper and J. F. Staal gave different views. Former gave the contextual specific usage which shows many attributes of functional concept but the latter one takes it as loaded with historical

²⁰Stocking, G. W. (1966). Franz Boas and the culture concept in historical perspective. *American Anthropologist*, 68(4), 867-882.

²¹'Modernization of Indian Tradition' is a book written by an Indian sociologist Yogendra Singh. Thomson Press (India), Publication Division, 1973.

²²Singh, pp. 1-12

connotation. M. N. Srinivas later re-defines *Sanskritization* as “a process by which a low Hindu caste or tribal or other group changes its customs, rituals, ideology and way of life in the direction of a high, frequently, ‘twice born’ caste. Generally, such changes are followed by a claim to a higher position in the caste hierarchy than traditionally conceded to the claimant caste by the local community.” Earlier it was confined to the imitation of Brahmin as a reference group and the imitation of their ritual and religious practices.²³

On the other side ‘Westernization’ is defined by M. N. Srinivas as “the changes brought about in Indian society and culture as a result of over 150 years of British rule, the term subsuming changes occurring at different level... technology, institutions, ideology and values.” (Singh, 1994. P. 9)²⁴

Y. Singh mentions that westernization and *Sanskritization* are two different concepts which are primarily focused on the study of cultural change. But the study of cultural change is not limited to only these two concepts as the famous work of McKim Marriott also contributed to it. His study was conducted in a village named *Kishan Garhi*, in northern India²⁵. He propounded two concepts which came to analyze the cultural change. ‘Universalization’ and ‘Parochialization’ are the two concepts which were basically linked with great tradition and little tradition. He explains that the process of universalization is exposing the little tradition such as indigenous customs and local deities circulate upward to a great tradition. Parochialization is the process of limitation upon the scope of intelligibility, of deprivation of literary form, of

²³ *Ibid*, p. 7

²⁴ *Ibid*, p.9

²⁵ *Ibid*, p. 14

reduction to less systematic and less reflective dimensions of the elements of the Great tradition²⁶.

To study social change Y. Singh mentions two parts which are at the level of structure and the culture. Cultural change is very important to study the process of change in society. There we need to remember those agents of social change which also contribute to the cultural change in society. Modernization, Globalization, McDonaldization, and so on and so forth are among the different conceptualizations which have been presented the perspective to study the changing cultural trends.

In the Indian context, culture has been changing in one or the other way and in post-colonial India, it has been observed very rapidly that with the developing society culture was changing because technological advancement was contributing and the age of IT revolution also verified this claim. William F. Ogburn²⁷ was the one social scientist who studies the relation between technology and the change in society. He considers technological innovation as a conceptual category which brings cultural change. He criticized the evolutionary theories because of the way their analogy is drawn, as biological determination or on the basis of development in stages of culture (Ogburn, 1922). Ogburn's line of reflection was significant and sharply focused on the mechanism of change and that was the technological invention or called by him as 'material culture'. He very well explained the social change; "The key to [social] change may be sought in the invention, [namely] any new element in culture(...) To

²⁶ *Ibid*, pp. 13-16

²⁷ William Fielding Ogburn served as President of the American Sociological Society (later changed to Association) in 1929.

understand the social change it is necessary to know how inventions are made and how they are diffused”.(Ogburn, 1922)²⁸

As Boas says about culture that no universal culture exists, rather there is plurality that exists in the conceptualization of ‘culture’. The idea also has the reflection of the changing nature of culture with the external force or materiality. Similarly, Ogburn’s analogy of propounding this idea of the technological invention carries the civilization or development characteristic and with the effect of inventions, the cultural change takes place in society. As Ogburn was often recognized as technological determinist because of his ideas that reflect the technological forces as not only the factor of social change but also the analogy behind how technology spread its roots in the society and here he ignores other different factors. We can look at the determinism in many of his writings: “What you do is likely to be determined by technology” (Ogburn 1938a).²⁹

So, the discussion on social change and the spirit behind, to which we call conceptualization, could be different in nature but the central point to look into is the idea which brings change in the culture. The contemporary Indian society and prevalent cultures have been popularly studied as a modern culture with reference to the intervention of the latest forms of technology and its impact on the present generation. The conceptualizations discussed so far did not include one latest conceptualization which is quite visible in contemporary India as the culture is drastically changing with an effect of it and that is “Digitization”. Many social scientists and philosophers like T. K. Oommen, D. Gupta, D. Bunkingham, Y. Singh

²⁸Ogburn, W. F. (1922). *Social change with respect to culture and original nature*. BW Huebsch, Incorporated

²⁹Ogburn William F. 1938a. *Machines and tomorrow’s world*. Washington: National Resources Committee.

and so on and so forth, who were studying society have diverted their focus to the study of ‘Digitization’ and ‘digital technology’ to grasp the effect of the revolutionary spirit of this concept. Digitization is bringing the rapid systemic and structural-functional changes to society and culture i.e. popularly known as Digital age³⁰.

Historical Mapping of Technology and the Factors of Emerging ‘Digital Culture’

Technology comes with a culture of its own and it is quite evident in the history. Whether we talk about ‘Railways’ or ‘Printing Press’ in India, the dominant idea of technological advancement always brings cultural change in society. Ogburn’s ideas of technological innovation and the change in culture were well framed in his argument but he limits his analysis on the material culture which impacts with effects of the technological innovation. The material tools are changing with innovation that certainly creates a systemic change in society and cultural practices³¹. For that reason, a famous Canadian scholar named M. McLuhan who throws light on this idea by his idea of “medium is the message”³². He says that every medium carries a social message inside and apart from its main idea of work, the range of effects on society does reflect in the medium. That famous work was done for media study and referred by the social scientists for such an analogy drawn by McLuhan in respect to look at the different models of technological inventions.

³⁰Calvert, S. L., & Jordan, A. B. (2001). Children in the digital age. *Journal of Applied Developmental Psychology*, 22(1), 3-5.

³¹Ogburn, William F. 1922b. Social change with respect to culture and original nature. New York: Viking Press.

³²Medium is the message is part of book Understanding Media by Marshal McLuhan, 1964, New York. It is firmly a sociological work and this conceptualization got popular amongst social scientists.

In the post-colonial period, India was planning for the development of the country and with respect to agricultural land; the modern technologies were introduced for the growth of agriculture. The technology was not something new to Indian society at that particular time as in colonial period British Empire had already introduced it in the form of Railways and printing press for the purpose of easier profit generation. To mention only railways and printing press has a reason as the new technology was also in reach of common Indian citizens. They encountered the technology and the change in Indian culture got noticed. B. Chandra mentions that British Railways had the greatest impact on Indian society in the freedom struggle. Not only limited to transportation, commutation but the cultural transmission took place through communication over caste, class, gender and racially segregated community³³. M. K. Gandhi also explains the revolutionary role of railways', while writing about third class compartment which was for Indian citizens³⁴. The technology of that sort was serving the basic function of transportation but also serving the social message to society in terms of arousing the spirit against the colonial rule and awareness of their capacities as being united.

The analysis done here makes us contemplate about the reasons behind the emergence of the technological interventions which took place in British-ruled India. In the context of railways, it was because of Britisher's interest in spreading the market and profit generation but the social change it brought was certainly acknowledgeable because it very effectively made the Indians realized their subordination and exploitation, which evoked their conscience and provided a push to the anti-colonial

³³Bipan Chandra's writing on railways. Karl Marx, His Theories of Asian Societies, and Colonial Rule. Review (Fernand Braudel Center), 13-91.

³⁴Third class in Indian Railways, it was carrying painful experience shared by M. K. Gandhi about British Railways.

movement. With reference to the Harold Innis's 'concept of Bias', the railways contain 'space bias' nature. According to him, there are two types of biases namely 'bias of time' and 'bias of space'³⁵. So, railways attracted people because it contains space bias and the impact on society at large came in effect as it crosses over cultural boundaries and brought together all the Indian Nationalists. But it was before the independence of India we noticed the technological intervention took place and its impact on cultural settings.

The dark side of the technological intervention of that period was also mentioned by B. Chandra with reference to the Marxist analysis of technological intervention in India and the prediction of the epidemic influence of capitalism enclosed with the technology, which would have a deadly divide in the society³⁶. The Marxist analysis of technology was well taken from his theory of historical materialism. Capitalism and the concept of profit maximization highlighted the technology as the major force to exploit the marginal. Technology has always been accessible to the bourgeois as they had the resource, so they used the technology as the means of production and profit generation.

India has always been seen as an agrarian society and the social, economic and political front was working towards the growth of the country through the development of industries and infrastructure after it got freedom from the colonial rule and neglected the agriculture. Later on with the virtue of the green revolution, new technologies were introduced as the forces to accelerate the agricultural activities

³⁵Innis, Harold Adams. *The Bias of Communication*. 1951. Intro. Marshall McLuhan. Toronto: University of Toronto Press, 1964

³⁶Bipan Chandra's writing on railways. Karl Marx, *His Theories of Asian Societies, and Colonial Rule*. Review (Fernand Braudel Center), 13-91.

in India with the effect of research and development in science and technologies for the purpose of faster growth of the economy and in the pursuit of self-reliance. Again as we noticed in the Marxist analysis the technology's exploitative aspect also worked at that point of time and now there were fewer people required at agricultural land because of the technological advancement, which replaced the farmer's active engagement on farms. The modernization and development planning of India reinforced the science, technology and technical education in India.³⁷ This was also mentioned by Y. Singh that Nehru's idea of Indian modernization was based on the scientific and technological development whereas Gandhian approach to modern India was limited to craft and basic education (i.e. *Nai Taleem*) for the equality and equal growth in society.³⁸ The Nehruvian vision to the modernization of India was not limited to the science education but he also reinforced the technological growth in society. The 1960s represented a landmark in the development of modern science and scientific institutions in India. All of the major scientific programmes initiated by India during that period blossomed as a historical landmark in the list of achievements and credentials of the country. For example atomic energy, space technology, self-sufficiency in food production (Green Revolution), information technology, and so on and so forth.³⁹ The machines and farming technologies were occupying the major portion of the manual farming activities on the field, which resulted into joblessness and hunger to the landless laborers and further led to mass migration in pursuit of a livelihood. This migration came with several other human needs like transportation,

³⁷Kumar, D. A. (2012). Technology Growth in India—Some Important Concerns. *Polish Sociological Review*, 295-302.

³⁸Singh, Y. (2012). Modernization and Its Contradictions: Contemporary Social Changes in India. *Polish Sociological Review*, 178, 151-166.

³⁹ Sharma, D. (2015). The Beginning of State Involvement. In *The Outsourcer: The Story of India's IT Revolution* (pp. 39-54). MIT Press. Retrieved from <http://www.jstor.org/stable/j.ctt163tcfk.9>

communication, housing, and many more. Each of these needs required the excessive involvement of technology. More and more people were moving towards the urban areas so, means of transportation was required and more vehicles were produced and came to the market. Once a person has migrated he/she needs safe shelter and this gave demand of housing. Neither the state nor the market could fulfill the housing needs of the immigrants, which caused the birth of slums. This settlement did not make a complete disconnection from the roots of these migrants and transportation and communication became a necessity of life for them. Automobile and telecommunication started making its own space in the life of people as well as in the market. Every moment the technology was getting newer advancements in pursuit of making better products which could attract a larger number of its consumers. The migration oriented the migrants with the importance of modern education and also catalyzed the quest for modern and advanced education among these migrants. Cities and towns were the main targets to get employment and education because of the facilities available. Migration was one of the factors to study when the advancement of technology was taking place in India. Here the study of socio-cultural change highlights the reinforcing factor i.e. information and communication technology, which certainly shows the Indian modernization but not the Impact of westernization, as mentioned by Y. Singh.

To stay in touch, telecommunication was promoted and also got popularity amongst Indian migrants. Communication over phones started in colonial period but it was far away from the reach of common people. Telecom industry spread its wings and made it possible for common people to access it in villages, towns, and cities through its

network.⁴⁰ Now, people who need to migrate to cities and towns for employment and education purpose, they found a way to stay connected through the telephone. But because of the poor connectivity in villages and also the difficulty in affordability of a device only for a member, who is away, was not possible for the poor families. This problem gave rise to the P.C.O. and S.T.D. booth, a small scale business. In towns, cities, and villages, people started charging for the services of telephone they provided to common people and because of this small scale business spread the telecom industry at large scale and the telephone became accessible for common people. With time telecom industry became the important need of society and not only for migrants but for business purpose, for office use etc. it reached to corners of India. As Habermas explains the need of communication for society and with technology, this gap was fulfilled but it was not free rather it was working as profit making venture.

Every limitation gives birth to innovation as Ogburn also relates to this idea of innovation and to end the limitations of telephone, mobile phones came in the market and it was the Mobile phones, which came first as an electronic communication technology to be widely used in India. Research on mobile phone also mentions that “since mobile networks are cheaper to build than landline networks, and communication by phone does not require literacy, mobile phones are now increasingly adopted in regions with no extensive prior form of communication technology. The rate of mobile phone sales in India has been phenomenal ever since the introduction of mobile technology in 1995. With a subscriber base of more than

⁴⁰S. Chandrashekhar (1998) elaborates it in the article published in Economic political weekly. It is about the use of digital technology for telephony to reach out to people in rural areas.

851 million, the Mobile telecommunications system in India is the second largest in the world and it was thrown open to private players in the 1990s.”⁴¹

Globalization was a big factor in this sudden change in Indian society and the technological growth at these decades. Not only limited to mobile but also the big change encountered because of the computer technology and Information and Communication Technology (ICT) flourished after that as measured in a research;

“From a stage when scientists and policymakers in India thought the country needed just two computers to its positioning as a leading global technology outsourcing hub, India has traversed a great distance in a short span of time. In 1977 India had hardly one thousand computers of different sizes. In early 2014, the number of computers was estimated to be 100 million. The number of telephone lines in the country in 1982 was 2.30 million—all landlines. The waiting period to acquire a phone connection was forty-seven months. In early 2014, India had close to 900 million mobile phones...”⁴² (Sharma, 2015).

This data mentioned above was not to represent the growing use of mobile phone and ICT rather; the focus is on the emerging consumer culture for this new technology in India. The idea of having a mobile phone also gives a reason to own a technology and the power attached to the ownership and to break the barriers came in the way to uphold the social solidarity and the spirit of being connected. The idea of ownership is another big idea which will be discussed later on in this analysis.

So far we have been witnessed different social factors which gave rise to communication technology in India and the IT revolution making certain changes in

⁴¹Daru Arun Kumar, Technological Growth in India. p. 298

⁴² Sharma, D. (2015). Conclusion: The Making of a Digital Nation. In *The Outsourcer: The Story of India's IT Revolution* (pp. 207-218). MIT Press. Retrieved from <http://www.jstor.org/stable/j.ctt163tcfk.16>

the Indian society such as increasing rate of consumption of electronic media and this, later on, represented India as a consumerist economy.⁴³ Before moving to the elaboration of this concept of consumer culture the recognition of final technology is required to discuss here and that is ‘digital form of technology’. When mobile phone consumption increased in India it was the time of Globalization and hence with the effect of the global world India also encountered the global challenges of development. Digital technology gave tremendous gear to this society where economic disparity was a huge limitation in the development planning. It is not the first time that digital technology was heard in India but it was not utilized for everyday information, communication and computation purpose. Earlier it was used in space technology and satellites but the innovative use of digital technology was discussed here for telephony in rural areas:

“The conversion of the existing analogue telecommunications and TV networks into digital information is a worldwide trend. Digital transmission technologies have resulted in significant increase in capacity, improvements in performance as well as an increase in the variety of services that are offered over the network. Here it looks at the satellite component of such a network, particularly telephony through INSAT, to assess the impact of going digital for rural telecom applications.” (Chandrashekhar, 1998)⁴⁴

This idea gave rise to the innovation in communication and digital communication takes place and the consumerist economy also geared the market to reach out to maximum population and hence the digitization spread over India. Digital technology

⁴³Kumar, D. A. (2012). Technology Growth in India—Some Important Concerns. *Polish Sociological Review*, 295-302.

⁴⁴*Ibid*

opens the gate towards global world and culture. Not only communication but all other possible activities related to communication, information, computation and so on and so forth were targeted by it and the nature of technology, as it is not limited to audio rather in fractions of seconds it transfer audio, video and pictorial data from one electronic system to other system and the storage of data made it possible to use digital technology for library and storage of office data. The only technology connected with multiple streams and now it was not only limited to telephonic talks rather smart-phones worked as a digital medium to create a digital culture in India. Now people can access multiple applications and perform multiple tasks at the same time. It provides the entertainment facility, banking facility, social media, computation work, and so on and so forth. With this, we further indulge in the discussion on Digitization of Indian culture. Before that one must understand the meaning of this form called 'Digital;

“Modem technology has made it possible to transmit large quantities of information, whether it is voice, visual images or pure data, using electrical and radio signals, and, more recently, light. A communications satellite functions as a space-based relay station, receiving information-carrying radio signals from the ground and retransmitting them. From its vantage point in the sky, a single satellite can span vast areas, a whole country or even continents and can interconnect several earth stations or smaller satellite terminals located anywhere in this area. This is the greatest advantage of satellite communications. In general, transmission of information can take one of two forms, analogue or digital. Analogue signals vary in their intensity in accordance with variations in the sound or image intensity they transmit. In a conventional radio programme, for instance, the intensity of the radio signal is directly related to the characteristics of the sound to be transmitted, such as its

loudness. The receiver is then able to recreate the actual sound from the radio signals it picks up and the fidelity with which this is done determines the quality. In such systems, the transmitted signal is a radio analogue or reproduction of the original sound signal. When a telephone conversation or a radio programme has to be sent in digital form, the sound is first converted into an analog signal as mentioned above. However, instead of sending it as it is, this signal is sampled many thousand times every second. Each sampled value of the analog signal represents the loudness of the sound at that moment in time. This value is converted into binary numbers, consisting of only zeros and ones. It is only this numerical value, in binary form that is transmitted in digital transmission. The inherent advantages of digital transmission, which will become clearer later, has resulted in a situation where digital modes of dealing with all forms of communication are likely to replace the traditional analogue modes of switching and transmission in all networks including satellite based networks.”⁴⁵ (Chandrashekhar, 1998)

Digital Culture and Consumption in India

Consumption of the advanced form of technology which is ‘Digital’ is in trend when contemporary culture and society is studied. The reach of this digital form of technology is now in every corner of society. It is not limited to communication at social media rather the Digitization has reached out the different institutions of society such as education, market, family and so on and so forth. A large number of studies have been done so far to map out the impact of digital in different areas or to acknowledge the evolution of digital culture in India. In political sphere the use of

⁴⁵S. Chandrashekhar (1998)

social media through the most economic medium of mobile phone seek attention in electoral campaigns happened recently and the use of messenger applications, video-audio messages, mass messaging service was used at large scale.⁴⁶ Not only political use but in education digital technology is spread at a larger scale and it is used as a pedagogic implication in the classroom where students are coming from the milieu surrounded by digital culture⁴⁷.

Primarily to reach out to a larger audience, digital form of technology is used but it provides a different kind of virtual world to the learner because of the nature of media itself is very complicated as it includes both ‘hot and cold’ media, referred from McLuhan from his conceptualization of hot and cold media.⁴⁸ This creates a virtual world where a person is engaged in all kinds of media at the same time that complicates the senses working for a particular kind of media.

The digital culture has emerged as a modern form of society with the effect of globalization. Society has accepted digitization as a symbol of being modern and technologically advanced society. The process of digitization is taking place at a fast rate in society but there are three important components which are essential for this process to take place, those are: a) The Digital Medium, b) The Internet connection and c) The skill to encounter the Digital form.

⁴⁶Tenhunen, S. (2008). Mobile technology in the village: ICTs, culture, and social logistics in India. *Journal of the Royal Anthropological Institute*, 14(3), 515-534.

⁴⁷Buckingham, D. (Ed.). (2008). *Youth, identity, and digital media* (pp. 119-142). Cambridge, MA: MIT Press.

⁴⁸Hot media is categorized as media which does not leave any space to fill the information by the viewer. For example movie and cold media leaves scope to fill information gaps by the viewer. For example commix. For further reference please look; M. McLuhan (1964). *Media hot and cold. Understanding Media*, New York.

The first, two terms are related to resource availability, the digital technology available for common people such as mobile phones, tablets, notebook, laptops, and digital watch and so on and so forth. The debate on digital divide is to cater first two components in a developing nation but the third one is very important because it reinforces the consumption rate. Before going deep into the discussion about which skills are required here for consumption of digital culture one must take reference of the consumer culture in India, as we have mentioned earlier as well.

Baudrillard, a sociologist has elaborated the concept of consumption with a sociological insight. His analysis laid down the foundation of looking at the social change from the consumption perspective which was ignored in studies done by sociologists in past. The mode of production was highlighted by Karl Marx was noticeable but Baudrillard critique it as it ignores the consumption as a force of social change.⁴⁹ He well expressed his idea of the power of consumption and he sets a reasoning behind this consumer culture which is not exactly based on need rather he conceives need as a naïve idea and further argues that needs are produced in this consumer culture. This is mentioned here to go further deep in the idea of Digital culture which is also producing such needs and dependency of society over digital forms in developing countries like India.

It is interesting to think about digital form, that what is so powerful about digital that it's producing culture.

Here we can just take the idea of Harold Innis to map out the power of Digital and the reason of production of digital culture in society. Innis mentions about bias in

⁴⁹Baudrillard, J. (1998). *La société de consommation*. Paris: Gallimard. Translated as *The consumer society: Myths and structures*. Pp. 208.

communication and he adds that every technology carries it. When the message is sent the technology could have time bias or space bias. To make it clearer we can take stone and paper as two forms of technology used for communication. Stone can retain the message for a longer period of time or decades or centuries where the paper is not that durable in nature but paper can travel carrying the message and this idea reveals the space bias nature of paper and opposite to that stone has time bias nature⁵⁰.

Now, this implied to digital form of technology and it surprisingly carries both time and space bias nature. The message can reach out to a destination over space and in fractions of seconds and also it can be stored or accumulated or preserved. The particular kind of features 'digital form' carries, makes it stronger than rest of the forms and also it represents the power of technology in society with the effect of making a different mode of lifestyle in the digital age.

Not only this but as we have discussed above the digital form made it possible to make the data available in any form, audio, video, pictorial and combination or symbols to which we categorize as hot and cold media. Radio signals make it possible to reach out to a larger audience and at an economic price. The discussion so far highlights the impactful nature of digital form and the effect it is creating in society but the digital culture which has been mentioned here is not the features rather it is the engagement with digital technology, and consumption of different form of digital media. Advancement of digital form has reached out to every sphere and has occupied the workplace, household, educational spaces and most important the leisure time.⁵¹

⁵⁰This explains the social impact of every form of media in the context of time and space. With effect of it one can explore the impact factor of other media too.

⁵¹Palfrey, J. G., & Gasser, U. (2013). *Born digital: Understanding the first generation of digital natives*. Basic Books.

In society, different classes are engaged with digital form and majority of them through television and mobile phones. A large number of studies point to the fact that people are spending most of their time with mobile phones, internet or engaged with digital media and also most of their work have been done through digital media and technology such as monetary transactions, shopping, business, job, entertainment, social networking, and educational activities and so on and so forth. It is beyond the concept of 'technoscapes',⁵² in which A. Appadurai limits his analyses on technology as a medium of exchange of culture through mechanical or informational technology but here in digital form of technology, it is noticeable that this form has led to evolve its own culture and the consumers of digital form of technology and media are unconsciously becoming part of that. In the following chapter we will be discussing the roles of culture in the development of personality as not only existing human rather the generation who is growing up with the effect of digitization would be of a different kind as suggested by socio-cultural analyses done by educationist L. Vygotsky, who has given social development theory. With this idea of consumption with respect to the digital culture, this chapter ends with the following idea of consumer of digital culture and their differences based on the socio-cultural development.

⁵²Appadurai, A. (1990). Disjuncture and difference in the global cultural economy. *Theory, culture & society*, 7(2), 295-310.

CHAPTER-2

DIGITIZATION AND THE “MISTAKEN MODERNITY”

‘Highlighting Realities of Homeless People in ‘Digital India’

In order to understand the individual, one must understand the social relation one lives in. This assumption was outlined by Karl Marx.

The digital age is not limited to the change in material culture in the form of having gadgets infused with digitization but the changing dimensions of information-communication and computation practice with the effect of Digitization are the concentrated view of the study. To live in the digital age in India, which one hand is a developing country on the other known for the diversity and plurality of culture. With the effect of this technological innovation and this emerging digital culture, where individuals are interacting with digital technology and consuming digital media is definitely drawing a concern that contemporary sociological debates raised the issue exists on the ground, that reflects a digital divide in society and forms categories of ‘haves’ and ‘have-nots’.⁵³ The idea of considering haves or have-nots is very narrow if we look from the Government’s view towards digital divide. The analysis over union budget 2014-15 by V. Mudgal interestingly lay down the critical analysis that planning of government focuses on bridging rural-urban gap through upcoming

⁵³Digital divide is a concept based on economic disparity exists in society and it raises the issue of accessibility and inaccessibility of resource while indulging with the idea of digitally empowered society. For further reference one can read: Nieminen, H. (2016). Digital divide and beyond: What do we know of Information and Communications Technology’s long-term social effects? Some uncomfortable questions. *European Journal of Communication*, 31(1), 19-32.

schemes of providing broadband, internet at large scale to rural area and establishment of virtual classroom, MOOC courses, spread of internet connectivity for village *panchayats* under the visionary plan which is also presented as a good governance plan of 'Digital India' and 'e-Kranti' (Mudgal, 2014). He mentions that finance Minister *Arun Jaitley* draws attention by his investment to cater the issue of disparity in India. That is;

'The budget provides a sum of Rs 500 crore to bridge the digital divide and Rs 100 crore for good governance. The finance minister talks about the imminent need to further bridge the divide between digital "haves" and "have-nots" through a countrywide programme titled "Digital India".'(Mudgal, 2014)

This is recorded on papers but how much it goes on implementation it is a different reality altogether. This analysis here raises some questions for society as the disparity in Indian society is not only at the level of rural-urban divide rather in metropolitan cities like Delhi and Mumbai also the population living in slums and migrant homeless people make a major portion of the category called 'have-nots'. The government's idea of welfare and development is relying largely on technological advancement as the schemes and plans suggest the visionary approach towards Indian society. This chapter reflects on this idea of development from a socio-cultural perspective which has been ignored largely by the Government's plans and another sight to look at the so-called development which is catering a structural change in the society that extends to civilization change. It includes fieldwork that is done in respect to understand the criticality of the issue mentioned above 'the idea of have-nots'. It is also important to understand the larger perspective from the marginalized group,

which shows a changing dimension of social issues and concerns and also their own reality being a citizen and participant of the digitization and its socio-cultural impact.

Introduction of Field-Exposure

The digital divide is very important to be acknowledged in contemporary reality of Indian society to cater the increasing disparity in society. Social scientists raise this issue in their work largely in the disciplines, e.g. Economics, Political Economy, Science and Technology, and Discrimination and Exclusion studies and so on and so forth, to highlight the issue of accessibility of resources. To summarize the ‘Objective’ of this field-exposure is to highlight the empirical reality at ground regarding the issue of digital divide and the possibility of accessing digital technology. Another important objective is to study the impact of digitization on society mainly on marginalized groups with direct or indirect interaction with the digital form of technology. On the basis of twelve structured interviews conducted with ‘homeless people’ in the locations of North and South Delhi, who live with extreme deprivation and resourcelessness. All of the respondents are migrant and they belong to low-income group. They belong to lower castes groups, and lower socio-cultural environment and all these concluding results to the inaccessibility of basic livelihood necessities. They are daily-wage workers and they do not get enough money to have a proper place to live. So, they live under the flyover, on the pedestrian lane and other such places. They do not have water and sanitation facilities, PDS ration card, legal LPG connection, legal electricity supply and every other facility which a citizen is entitled to and people living in slums also have all such basic facilities. Sometimes they are even deprived of the social security due to lack of a

proper housing facility. So, they live in the ghettos and do not keep anything costly which can be stolen and cause big loss that also stops them to have access to several things which a person living in proper housing can avail. They try to make groups among themselves to keep a watch during day and night for their essential commodities and their children but that fails because everyone who has migrated is here to earn money and sometimes the people who are kept for a watch have been found involved in the theft and other unexpected activities. Usually, these ghettoizations are of the people who belong to one place of origin, where they were unable to meet their basic needs of livelihood because of which they migrated to the urban areas, in the pursuit of a better life and work to support their family to fulfill basic needs.

For this exposure the chosen sample is quite unusual because of the socio-cultural conditioning of the interviewees. I have conducted twelve structured interviews in total and out of which, four interviews conducted with the male participants, living under the flyover of 'Ber-Sarai' (only male participants were free to talk as females were busy preparing dinner for the family using fire woods on a temporary arrangements like a traditional mud stoves), located in South Delhi. Rests of the eight interviews were conducted in the northwest Delhi, and the participants were residing illegally alongside to the boundary wall of the MCD primary school of 'Shakurpur J.J. Colony'. Those small houses are temporary and made of bamboo sticks, mud, bricks and plastic sheets. Out of eight participants, two are females and six are males. The idea to interview some females is to look into the reality from both the perspectives and also to highlight the narratives of female participation in contemporary structural reality. To grasp the clear situation of the extremely poor section of society and their minimum and maximum encounter with digitization, the focus of the interview guide

and questions for the interview was only laid onto the 'Smartphone' being a digital gadget and with the effect of digitization and smart features, it serves maximum to society. To focus on the second objective of this fieldwork the questions were framed to seek out maximum encounter, usage and later on effects of interaction on user's personality highlighting the criteria such as Age, Gender, Education, Work, and other important issues such as power of technology, accessibility in the society, hurdles in interacting with digital gadget, other socio-cultural realities.

Analyses Based On Responses

Digitization in India has emerged furiously as noticed by market researchers who keep a watch on the consumption rate of digital gadgets but as social scientist concerned about digital divide, the fieldwork acknowledge it very critically and found that the lower strata of society are concerned about their basic livelihood but apart from this social reality of increasing rate of communication through personal gadget is another reality which was noticed and participants highlighted the reason behind this consumption of gadget, it is the necessity to stay connected with their own local origins to which they belong to, is the most important reason of having a mobile phone these days. To this response when they have posed a counter question that 'why do they carry a smart phone while there are other options to contact the home-town'. The answers given by the participants on this question highlighted another reality beyond the functional view and I would rather relate it to the concept of M. McLuhan, who gave a media theory by coining the idea of 'Medium is the Message' (McLuhan, 1964).

So, the technological shaping of society effect was encountered because of their idea of owning their personal smartphone which is fulfilling multiple desires such as they need not buy other entertainment gadgets e.g. television, radio, Camera and so on and so forth. Some of them have mentioned about saving big expenditure on an expensive resource such as computer but we can have it with a minimal investment in a smartphone. Some of them mentioned about its utilization for the purpose of education and work-related necessities. Here the utilitarian approach was highlighted by participants but sociologically they are making their own life-world in this particular digital gadget.

While enquiring about the idea of having personal mobile phone, it was found that they have acknowledged that in context of privacy and they mentioned about the personal space they are offered through this phone with their friends or concerned people which are important for them and hence one should have a personal mobile phone but their economic condition does not allow them to have a personal mobile phone so they have maximum of two to three mobile phones in the families which can cater the most essential need of communication and among those two-three phones the one with the most advanced features would be owned by either the person who has maximum economic contribution in the family or the one who is well versed in using the maximum of the features (digital natives). While talking about the usage, they pointed out their interaction with the social media, which is another reality or we should perceive it as a hyper-reality in the contemporary digital culture. The idea of finding their personal space at social media has created an influence to the user, which is largely the youth and upcoming generation, to find a self-desired society at social media. In this digital sphere, they interact with people of their choice and this media provides freedom of choice to its users with reference to the person he/she wants to

interact by adding and removing or blocking options available for people on social media.

Not only social media but they have other reasons related to their security and communication as respondents mentioned the reason for having minimum two mobile phones is to utilize the effective feature of stay connected while going out for different purposes such as work, shopping, meeting people and so on and forth. Usually, they keep one mobile with the head of the family, who is mostly the male and another with the rest of the family. In the case of both partners working they carry one phone with them and leave one with their children to check any kind of necessity or emergency as they reside at a temporary settlement. There is a kind of check or the surveillance is also attached to it in the context of keeping in touch. As Z. Bauman says that with the modern technology one needs to maintain the dichotomy between security and freedom. If you want security in this technological age then you have to compromise with your freedom and if you want freedom then your security will remain at stake (Bauman, 2016)⁵⁴.

One critical statement made by a female respondent was that she belongs to a Muslim community and her husband divorced her and now she has to go out to work to earn the bread and butter for herself as well as her daughter and mother. So, this mobile helps her stay connected and updated regarding her family when she is out for work. She further added to her response with a disappointing note, that these smartphones are not good in other sense because it makes your life public. She also talked about having a personal mobile phone and said that it is a matter of risk in our society where

⁵⁴Z. Bauman mentions his comment while talking about modern technology and its direct relation with society in an interview i.e. ; http://elpais.com/elpais/2016/01/19/inenglish/1453208692_424660.html, accessed on 20/01/2017.

people misuse it for many reasons. Anyone can access your information available in that domain and can create trouble for you. So, one should not use this digital media without having proper knowledge. So, the security and freedom concern which Bauman was concerned for, in this liquid world, this woman mentioned about the same from her personal experience with digital technology.

Another important statement was made by another female participant that now it is no more our choice, almost everything is either influenced or dependent on technology and people are buying smartphone not only for its number but also for mobile applications, have become important for necessary activities such as Government schemes for e.g. pension, BPL benefits, etc. are working through smartphones and we have to learn how to operate it. One male participant has also replied on the benefit of digital technology that it saves time and money spent in mobility. He gave an example of his submission of documents through email, although he did not know what it is but he was thankful that it made his task easier. Out of twelve respondents, eight claims that it is good but we cannot give it to our children however they agreed to give them the device when their children will become mature enough to handle it. Some of them mention that their kids use it and now they know all the functions and applications. Most of the time children play with the phone and we also motivate them to learn through apps which they operate easily. So, the life on digital medium is overpowering the human world as people are amused with the power of technology and these amusements give life to the understanding of technological innovations as an extension of man. One can see how it has a positive effect in the real world but the kind of bias it has which takes us over time and over space which Harold Innis talks about and Giddens also mentioned creates a hyper-reality and apart from it when the larger exposure of digital form of technology with the upcoming generation is

definitely making a group of people who live beyond reality and their life is mostly dependent on the power structure created by digital technology. This Digital Natives⁵⁵ generation, whom Mark Prensky identifies as the learner lives with digital reality and coined the term 'digital native' who is more or less surrounded by a digital culture which will expand as the part of his milieu.

While talking about the hurdle or difficulties faced by the user in interacting with digital technology respondents' mention that it is easy to operate. These smartphones usually have English as the medium of instruction and interaction which is not that big an issue, in the beginning, the difficulties and hesitations will be there but after some time you will be comfortable with it. Some of them mentioned, they learned to use it by the hit and trial method. Two of the respondents mentioned that they find it difficult to handle a smartphone so they do not even try it because their economic condition does not allow them to buy another smartphone if they destroy the one by handling it in a wrong way. It is important to mention here that out of twelve participants only one respondent was Graduate and rest all were having education below the high school level. Some of them were not literate and the most important thing to mention here is that they all were not comfortable in reading, writing and speaking of English but at the same time they use the smartphones and operate it almost comfortably. So, the digitization is furiously spreading its wings, not because of the uniqueness it contains in its particular form of power of technology but here the power of technology is cohabiting with the needs of a society where other technologies were lacking. The symbolic interaction which is the ancient knowledge

⁵⁵Digital Native is a term coined by M. Prensky, who is an American educationist and writer who have done a study of modern technologically advanced digital culture and the comparative analysis of generation interacting with them.

system noticed in the anthropological works who get insights from the interaction takes place in society and it also take us to understand the idea of hot media which digitization is spread mostly so that it reaches out to the large audience who need not have any training or skills. Without giving a second thought they can consume digital medium and the impact created by digital media makes people lose sense while interacting with such technology whose audience is dependent on hot media. The impact becomes as strong as the audience loses senses and with the effect the rationality and criticality also seem to be insignificant.

I found it worth mentioning when one of my respondents residing under the Ber-Sarai flyover, shared during the interview. He shared his feelings that how bad he was feeling after he lost his smartphone. He mentioned about his irritation level because he got addicted to watching videos, listening to the songs, playing video games, photos and so on and so forth. He mentioned now he will buy a new mobile with the earning of this month. After the daylong labor work he used to feel stress-free with some entertaining content but now from morning to night he has to find out other sources of entertainment and he is getting involved in substance abuse. He also added that the mobile phone was his biggest stress buster and it used to make him relax from all the tensions he usually has because of his hectic work schedule and family issues. He used to feel relaxed and forget about all the existing worries and tensions at least for those moments when he was with his mobile phone (watching videos, listening to the songs, playing video games, photos, etc.) he was living in a happy world. This confession is important to understand with reference to the concept of liquid life observed by Bauman in his writings, which is similar to the feelings of the respondent where he lands up in a hyper-real world (no matter for how long) but it has also a commodified value attached to it which makes it difficult for him to live in his real

world, as it was also a kind of coping mechanism for him which he has found to escape from the contemporary issues in his surroundings.

The overall analysis was a reflection of the technological encounter in society and creation of the digital divide, which people are facing as the compulsion of participating in this mass culture. The recent efforts of Governmentality⁵⁶ have given very strong push to the people's participation in the emerging digital culture where anybody who is escaping from participation is categorized as anti-social (Baudrillard). This contemporary society from upper to lower strata everybody is interacting with digitization at large and also encountering its greater socio-cultural impact. The above analysis based on the empirical interaction highlights the existence of economic disparity and the digital divide as the difference of participation is observed but the level of impact varies according to the intensity of encounter with a digital form of technology. On the basis of the data, this analysis goes deep into the sociological inquiry in the later part of this chapter.

Digital Encounter and 'New Modernity'

The digital form of technology actively forms a different environment, that is already explained above but how it is different and the process of emergence of this environment is yet to be explained. In the discipline of social sciences the critical perspective towards technology has always been noticed and acknowledged in the previous studies and hence H. Marcuse had made a critique of technology during the industrial revolution, majorly focused on the modernity which creates a particular

⁵⁶Here the term 'Governmentality' is borrowed from the concept propounded by M. Foucault.

kind of 'One-dimensional society'⁵⁷, but this acknowledged a view with such features of change, was limited to work and industrial encounter of technology (Haultz, 1996). Later on, M. Castells⁵⁸ raises the social concern, regarding the encounter of technology with society in the form of 'The Rise of the Network Society' and the information age (Castells, 2010). That laid down the foundation of the study of information and communication technology and this idea was also geared up by such studies to trace the history of technological advancement over human civilization at a greater extent. Historical tracing is important in a way to locate, investigate and interpret the different types of changes as well as the historical landmarks in the society from different perspectives so that we could correlate with the present. For Sociologists, A. Pathak words defining the importance of looking at the history of particular phenomena is relevant and he writes;

"A meaningful sociology would be incomplete without an adequate understanding of social history. I would, therefore, suggest that we should teach our students an important component of the history of modern India: colonialism as an encounter of cultures, the growth of new intelligentsia, and reinterpretation of science, religion, modernity and tradition. This social history would enable us to see how Indian modernity was evolving, and its contradictions, ambiguities and possibilities..."
(Pathak, 1998;p. 43)⁵⁹.

⁵⁷'One Dimensional Man' is a book, written by H. Marcuse who was working through Marxist tradition of thought and Marcuse discusses about industrial work and technological modernity which makes a man irrational.

⁵⁸Manuel Castells was a Spanish sociologist, who has been 5th most cited social science researcher and works in the area of information society, technology and globalization.

⁵⁹A. Pathak cites his own words in context to explain the importance of history for doing a good sociological study and also one can notice in his 2014 article the insights of his previously raised concerns in regard to modernization.

In the last chapter the historical mapping of technological advancement and in Ogburn's view technological innovation we have seen that over time the socio-cultural change is reflecting the technological shaping of society but somehow it is noticeable that the difference in the form of technology makes a relative impact on society. We have noticed the digitization emerged as a revolutionary form of technology and has been expanding itself ferociously over the life of common people which has caused different kinds of remarkable effects on human society and all these make it an issue worth studied painstakingly. So, focusing on the analysis some categorical reflections have come out to explore the socio-cultural impact of digitization and these categories are making rational sociological connections with the filed work and the secondary literature analysis.

First major reflection is with reference to the conceptual understanding of M. McLuhan, who elaborates that every medium carries a specific message in itself and this social message is beyond the utilitarian approach and functional reality rather it is a sociologists concern that raises a call for a critical scientific approach to study and find out what social message a technology (the medium) carry with it (McLuhan, 1964)⁶⁰. His theories on media have been critically acknowledged by social scientists and his idea to make categorization of media as 'hot' and 'cold' is contextually very relevant to be mentioned and discussed here, to investigate about the results after the society encounters with a digital form of technology. When anyone encounters any media i.e. print, audio-visual, pictorial or any other form of media, it creates an effect and that effect makes a category to decide its power. Hot media which hardly leaves any scope for the viewer/observer to use his/her senses for example; a motion picture is high definition media which leaves very little space to add anything from the senses

⁶⁰For further reference, The book 'Understanding Media' by M. McLuhan.

apart from the relation of personal experience and hence it is called 'Hot' media. In the case of cold media, person has to use some senses, such as cartoon image (McLuhan, 1964).⁶¹ On this note digital form is providing both hot and cold media but this medium has a message which is creating a time-space bias⁶² by creating a possibility to access anything over time and space. Reflecting upon this concept sociologists have moved on from initial concerns over time-space compression and a 'death of distance' (Webster, 2013). The Giddens's 'reflexive modernity'⁶³ which has a similar concern but that is again establishing a foundation for a direction of development, from tradition of modern state but digitization in contemporary context shows a new dimension in effect of civilizational shift, death of the time-space dimension of life and nature and digitization effect has created this aura in the form of mass culture.

The second reflection is on the increasing hyper-reality, as suggested by the empirical data, the idea of the death of space and time is dangerous for human civilization and the increasing hyper-reality with an increment of digital spheres have reinforced this danger of living beyond reality⁶⁴. With the effect of digitization now individual is present beyond his or her own real existence, for example, most of the people now stay present virtually at a different place such as office, market, home, social public sphere, and all those presences create their own particular effect on the response of the individual. Referring to the fieldwork, one individual who is listening songs while working makes his professional time zone as a leisure time or if an individual is in a

⁶¹ M. McLuhan, *Understanding Media, Medium is the message*, 1964.

⁶² H. Innis, *Bias of communication*.

⁶³ A. Giddens, who have reflected on the reflexivity in the modernization in contemporary society and raises concerns from a sociological lens.

⁶⁴ *Liquid Modernity* is a concept which was based on the changing nature of cultural practices and the temporality of the modern state.

negative mood at a particular time he or she can respond with the effect of that negativity to all the forums where the one is present virtually as well. So, now the critical concern is the impact of a particular experiential reality moves space and over time and hyper-real personality effect over power in this situation which works beyond one's own reality. The idea of liquid modernity⁶⁵ enters while discussing these concerns because of the changing effect of individual personality with the effect of 'change in the stimulus' coming from the hyper-real virtual sphere⁶⁶.

The third and final reflection is on the self, to which the digitation is shaping in a particular hyper-real mode. The 'self' is influenced by the power owned in the hyper-real world which has been created at a social media where the person is the 'Creator' of his/her own social world and the interaction takes place within the group of his/her choice and apart from this, it is also creating a powerful structure to channelize the forum on their own thoughts. Majority of people use these social medias, for leisure, for political-social interaction, for personal sharing or releasing stress by just putting up a status or picture or video of their own choice and this data reflects that all these are forms of a libidinal turmoil people have in Freudian analyses which reinforces the individual to go beyond their own social reality and limitation.⁶⁷ On the social-media, they feel good with the people of their own choice or the activities they do, increase the hyper-real self which does not worry about society. It does not mean it is the individuality which Giddens mentions rather this individual shows the importance of society and social solidarity but at his own terms and wishes and hence people feel

⁶⁵Z. Bauman, Liquid Modernity, 2000

⁶⁶This is coming from the interaction of two perspectives coming from two different thinkers namely Bauman and Baudrillard.

⁶⁷Sigmund Freud's psycho-sexual analyses in the field of personality development theory.

happy with these hyper-real world creation and they find their fascinated world with the effect of digitization.

In the context of India, there are different views related to modernity, because of the distinct features it exhibits in the form of local diversity as acknowledged by R. Bhargawa⁶⁸ in his writings on the understanding of 'multiple modernities' but Digitization highlighted the changing dimension of modernity in Indian context with effect of technological advancement and innovation. The concept which was debated so far by social scientists⁶⁹ in India, who have come with distinct understanding on the ideas of 'multiple modernity' and 'western modernity' is found fragile in the context interaction between the global digital modernity and Indian traditional system and creating a liquid effect with is encountered by Z. Bauman's writings where he noticed this civilizational change in this technocratic world⁷⁰. In a contemporary Indian context, this idea of 'Liquid Modernity' is fascinating to acknowledge a kind of relative similarity with this gradual process of moving towards the digitized culture which goes beyond the real spirit of life and society. To look into this analysis, one should explore that why Z. Bauman highlights about Liquid Modernity⁷¹. To elaborate this idea one can notice the practices which are taking place in society after the emergence of digital technology, the practice of tradition and local culture is same

⁶⁸R. Bhargawa is an Indian Political Scientist, who was a director of CSDS and had been a Prof. in Jawaharlal Nehru University, New Delhi. He has explored the concepts such as Democracy, Secularism, Political Thought and so on so forth.

⁶⁹Social scientists namely R. Bhargawa, Y. Singh, M. N. Srinivas, who have been writing on the context of Indian Modernity and Social Change.

⁷⁰Z. Bauman, Liquid Modernity and Liquid Life, where he encounter with the contemporary changing society with effect of technology and this greater impact is making a change in civilization, not only on personality but the thoughts process, behavioral and most important the change in rationality.

⁷¹*Ibid*

but the temporal and special reality has been changing⁷². At a minimum encounter of technology, makes a person evolve his/her endless desires. As researchers have been suggesting about the impact of digitization in different social institutions and practices such as; they reflected upon the nature of digital education on formal and informal learning, the idea of virtual shopping makes you explore luxuries and reinforces the choices which are beyond your economic reality; digital public sphere reinforces to come up as producer and consumer of media at the same time and hence the self-focused interaction takes place in such digitized social-media (Erstad, 2012; Jain and Schultz 2016). The interaction with digital form of technology takes people away from reality as the idea to live beyond time and space dimension which we have explored at a great length with the empirical observations of filed work and textual analysis, Innis discusses this concept with reference to communication technology and Baudrillard acknowledge it from a consumerist vision but this deeply reflects in writings of Bauman where he repeatedly criticizes the social media and technology which is creating a self-obsessed personality by the virtual power provided by Digital technology to shape society as a hyper-real world (Bauman, 2016). His argument suggests the advancement of technology and its relation to human freedom and security is opposite. He marks a critical reflection on this relation that if someone wants security in this technological era then he or she has to compromise with the freedom and if that individual wants freedom then his or her security will remain on stake⁷³.

These observations are critical in nature, where people are thinking technology as a modernizing force but on a critical note, it is making humans deprived with memory,

⁷²Taking reference from field-work done by the researcher for this study.

⁷³http://elpais.com/elpais/2016/01/19/inenglish/1453208692_424660.html, accessed on 20/01/2017

reality, and rationality⁷⁴. It is not changing traditional practices as people are communicating, seeking information and consuming goods as they were doing earlier but it is rather incorporating liquid effect to the civilization, depriving with a larger reality by making addition of virtual communities and virtual world for citizens. Digital form is creating over time and over space effect which is hyper-real and which also reflects a hyper-real self who can control society on a digital platform⁷⁵. Thus Turner cites Baudrillard observation⁷⁶;

“When desire is entirely on the side of demand; when it is operationalized without restrictions, it loses its imaginary and, therefore, its reality; it appears everywhere, but in generalized simulation. It is the ghost of desire that haunts the defunct reality of sex. Sex is everywhere, except in sexuality (Barthes)’ (Baudrillard 1990b:5).”⁷⁷

Digitization and Challenges for Rationality

Highlighting all the ideas mentioned above, to understand the liquid modernity in the context of digitization and its message, which calls for a chaos in the social positioning of individuals’ rationality, needs to be explored. Individuals who are encountering with the impacts of hyper-individuality, as the nature of technology makes oneself settle in hyper-real mode because the personality stays present all-time at multiple virtual spaces. This is to highlight the first critical concern of the changing rationality of individual in this digital age;

⁷⁴ Concluding on the basis of overall critical analyses based on field-work and textual analyses.

⁷⁵ Bauman, analyses over social media. Retrieved from:

⁷⁶ For further reading on the topic of modernization and post-modernization; Turner B. S. (1993). *Weberian understanding; MAX WEBER from History to Modernity*. Routledge Publication.

⁷⁷ *Ibid*, p. 35

The multiple role practices and the occurrence of role conflict is a possibility in Ralf Linton's words, as he gave the theory of roles but this digitization has created the virtual presentation and people are performing the roles simultaneously at different virtual spaces apart from their original existence. With reference to fieldwork, it was noticed in the responses that the digitization has been removing the steep boundary between formal and informal performance. In Goffman's words the actor is performing on the stage but at the backstage actor lives in informal life and the conflict occur when it the performance on stage and backstage entangles. The output comes in a mode of dissatisfaction because of the clash between formal and informal. Apart from this observation in the web of digitization, a person is being present in the personal-professional and social sphere at once. The idea of digital technology and communication over a digital medium, where we are present virtually over time-space, makes changes in individuality (Patiniak, 2013)⁷⁸. The research based on the formal or informal learning supports this argument that the output of education is not satisfactory as people are not engaging in a serious manner and the understanding gets flawed. In the same way when information explosion is taking place as Baudrillard mentions about the consumerist culture where desires are on the side of demand as the high rate of consumption forces the society to question its own rationality. Living in this digital cultural zone an individual loses thoughts as he/she wants to explore those unlimited options which are there to fulfill his/her increasing desires but his/her senses are left with no rationale choice as hot media is largely transmitted to the receiver at a global digital platform. So, nature of media leaves no space to think over but the rationality loses its scope when within friction of seconds such options multiply and the previous choice is replaced by a newer one. This analysis is an

⁷⁸Pattnaik, B. K. (2013). Globalization, ICT Revolution in India and Socio-cultural Changes: Sociological Explorations. *Polish Sociological Review*, 39-62.

application of liquid nature of contemporary rationality and digital culture which creates a liquid effect to the life of people, their personality and thoughts in correlation with the hyper-real world. (Bouman, 2011 and Boudrillard, 1998)

Rationality is not only affected by the 'Liquid' effect rather there are more factors engaging with the digital culture. The Idea of Weberian rationality is very influential, but this modernization is largely influenced by globalization and the engagement with the existence of plurality of ideologies has been acknowledged but it takes a wrong turn when it is present in a digital medium. Hence the social message is that digitization is a powerful platform where all different realities are present with the effect of capitalism and the power of 'Hot' media which becomes hurdle to acknowledge the reality of market forces and their individual gets influence with the collective conscience whom he or she is connected to a digital platform and this rationality becomes influenced by collective conscience. This statement is to contextualize Bauman's observation on the contemporary state of the world with technological advancement, where people have created their own communities on different digital platforms, which are according to their own choice and wishes (Bauman, 2016). One can add people and has all the power that he/she can stop people from joining the created communities or groups on digitizing medium of communication i.e. social media. One can avoid an argument or can limit their notifications and so on and so forth which is exactly opposite to the real situation where one cannot avoid the existing compulsory dialogue and such situations which they have to face. One has to accept their own community and people and have to maintain the relation and social behavior⁷⁹. So, overall understanding is related to the

⁷⁹Palfrey, J. G., & Gasser, U. (2013). *Born digital: Understanding the first generation of digital natives*. Basic Books.

self-directed hyper-reality which has become possible because of the emerging digital culture that made this situation possible.

In this analysis, the focus laid on to the idea of rationality which is losing spirit to look at the world and to understand the world with a rationale perspective. Rationality is the concept which characterizes the act or in other words, we can say it legitimizes the act whether in a positive category or negative for sociological development. Weber's idea of rationality was the core of his lifelong work as he relates rationality with all his concepts such as social action, modernity, capitalism, and democracy so on and so forth. Turner mentions in his book that;

“These chapters on Weber’s comparative historical sociology of the problem of modernization were written over a period of some fifteen years, but they address uniformly the primary Weberian question: what is the characteristic uniqueness of the times in which we live? The principal answer is rationalization—of tradition, religion, politics, money, sexuality, the state, and the human body.” (Turner, 1993)

He finds rationality with the development of society towards modernity but the analysis stated above on the contemporary socio-cultural development in the mode of digitations and the creation of a new hyper-real life-world, is showing a different path of liquid rationality.

It is not that one-dimensional man, that H. Marcuse relates with a technological encounter with a man and the lost rationality⁸⁰ but it is a hyper-real culture which is a result of digital ontology and the bias of time and space, creating a different individuality which is rational in thoughts but he has unlimited thoughts around too

⁸⁰One dimensional man, Herbert Marcuse, 1964.

and hence it better termed as ‘liquid rationality’, who is democratic in lifestyle but at the same time chose not to be real rather hyper-real social being.

This analysis of modernity and rationality are directly engaged with the newly coined terms in the digital cultural society which is noticed in developed countries so far and now in the Indian context, the wave of Digital India would soon encounter the categories called ‘Digital Native’ and ‘Digital Immigrant’.

Digital Native and Digital Immigrant

‘Digital Native’ and ‘Digital Immigrant’ are the two categories based on their orientations towards the impacts of emerging effect of digital culture on humans, which came in light with the discussion over such cultural change in society and the socio-cultural issue arising in society with regard to learning and development (Prensky, 2001a)⁸¹. Digital native is living a life where he has a democratic choice but he is unable to settle with his own rationality as the digital network makes him realize about unlimited option to explore. Digital native who gets the foundation in digital cultural setting and the socio-cultural development reflects the personality of the digital native⁸². How these categories are found in society by the research of M. Prensky who is an educationist and who has an integral interest in the learning and development patterns of children. Child development caters the whole debate of how do children develop.

⁸¹Prensky, M. (2001a). Digital natives, digital immigrants. *On the Horizon*, 9, 5, 1–6.

⁸²Referring to socio-cultural theories of development where the role of culture and environment reflects in the personality of child. L. Vygotsky, Frued, Piaget, Erikson and G.H. Mead are the once who have discussed about the development patterns of child.

The Learning Process

Learning is a continuous process and starts before birth as mentioned in the child development theories but the social and cultural influence takes place when a child starts interacting with its surroundings. In psycho-social analysis, it is referred as schema formation and Piaget explains the process of learning with the help of concepts like adaptation, assimilation, accommodation, organization and the phase of equilibrium. Schema formation is the very first stage where a child knows about any concept of material or non-material object or idea and forms a schema. It is a very important phase of development when these processes take place and it is just like the building blocks of the human development process⁸³. For example, if a child is encountered with rural cultural setting then the schema will be developed with that kind of cultural activities and if a child is surrounded by high tech environment then the personality will emerge as 'Digital Native'.

These behavioral changes making a new individuality which is hyper-real because when the natural milieu is overpowered by the effect of digital and that person unconsciously guided by technology become a hyper-real individual with a low rationality or a liquid rationality and hence 'digital native' is different from a digital immigrant. The personality of a Digital Native will be the result of this new Digital Culture and Digital immigrant is also carrying the effects of digitization but the socio-cultural and psycho-social approach of human development suggest that early foundation of development influence the later development of a personality as suggested by Sigmund Freud, Erikson and Vygotsky. Chomsky's Universal Grammar also add to this idea of foundation years of a child to grow with is the cultural effect

⁸³Laura E. Berk, Child Development, 2000.

on personality⁸⁴. So it is a basic difference between the digital native and digital immigrant who all are surrounded by a digital culture in this digital age.

A digital immigrant⁸⁵ is accommodating digital culture but the personality and cognitive capacity will be accommodating the new cultural practices of this digital world because of the early development impact have established the foundation of a body and brain development. These psycho-social reasons make a difference in the two personalities living in the similar digital cultural setting.

So, at the concluding remark of this chapter, it can summarize the analyses over triangulation of time-space bias, Hyper-reality and liquid modernity in relation to Digitization one can interpret the power of the digital form of technology. A. Pathak noticeably mentions Bauman for his thoughts on the sociological study on the topic modernity;

“...a sociologist as an intellectual is no longer the 'legislator' (who is certain about the virtues of European Enlightenment), but a humble 'interpreter of 'multiple cultural traditions' (Bauman, 1987).⁸⁶”

The studies by W. Ogburn contextualize the technological innovation which is taking place but that innovation is directly related to civilization and that relation tells the message of that technological innovation, should be understood from the the sociological lens and that was the only conclusion reflects from the writings of McLuhan.

⁸⁴Chomsky, N. (1980). On binding. *Linguistic inquiry*, 11(1), 1-46.

⁸⁵Digital Immigrants is the term propounded by Mark Prensky, educationist, who wrote for the emerging crises in education and society in regard of the emerging digital culture.

⁸⁶Pathak, A. (2004). Teaching/learning sociology: A critical engagement with modernity. *Sociological bulletin*, 53(1), 31-48.

Chapter-3

CHANGING SPIRIT OF EDUCATION IN 'DIGITAL INDIA'

From Tagore's idea of 'learning in nature' to the idea of Piaget's 'active classroom' we have been observing an active role of a particular space and time in knowledge acquisition. The idea of education and formal school and college education is promoted by British colonizers who have imparted the concept of citizenship in Indian Natives who were expected to serve at the time of colonial regime (Kumar, 2014)⁸⁷. Post-colonial period shows that the idea of education has been changing in India and the major change is influenced by the political ideology, vision and Government policies and planning⁸⁸. A. Pathak (2014) incorporate this perspective in his writing by associating this generation as Macaule's kids in context of formal education taken from institutions following western ideology. He later on critiques the idea of this western education system imposed over Indian knowledge system and he approaches for reflection on the Tagore's, Ambedkar's, Phule's and Gandhian idea of education⁸⁹. The time when Liberalization, Privatization and Globalization were taking place in Indian society, the change was not only limited to market rather it has made a great impact on the idea of 'Education' too. Market forces captured the service sector and turned it into profit generating entities and the quality of public institution declined after that. This phase in Indian education was

⁸⁷ Chacko, M. A. (2016). Politics of Education in Colonial India. By Krishna Kumar. *Pacific Affairs*, 89(4), 934-936.

⁸⁸ Phalkey, J., & Chattapadhyay, S. (2015). The Aakash Tablet and Technological Imaginaries of Mass Education in Contemporary India. *History and Technology*, 31(4), 452-481.

⁸⁹ Pathak, A. (2004). Teaching/learning sociology: A critical engagement with modernity. *Sociological bulletin*, 53(1), 31-48.

acknowledged by many scholars because it changed the idea of education. G. B. Nambissan and S. S. Rao (2013)⁹⁰ explains in context of higher education and I quote “The post- 1990s reforms initiated in education as part of the larger economic restructuring in India have led to a number of significant changes: the distinct spread of marketization and commercialization in education; the withdrawal of the state; and the decline in state subsidies which is most visible in higher education” (p. 2). This sudden shift in education, hit Indian society and it largely changed the idea of education from the promotion of mindfulness to acquire degree and the emerging hierarchy of learner’s class. This was not the only example of political intervention rather there are many in our post-colonial history and post-colonial development phase of Indian education⁹¹. This chapter revolves around the changing pedagogies with effect of the change in society and culture. The pedagogy is influenced by this politics of development the colonial period introduced print media which was introduced for modernization of Indian education system. The idea of school education attached to print media and then it carried out in post-colonial period as well. When the new wave of IT revolution hit India with implementation of Rajiv Gandhi’s vision to make Indian Education system as a high-tech system and hence he launched Computers in India. Since then Gandhi’s *Nai Taleem* was followed in school curriculum but just as a co-curricular activity in schools. Learning for livelihood is not the only focus of Gandhian Idea of education rather to make responsible citizens since their primary education and also to empower them with skills and values at the same

⁹⁰Nambissan, G. B., & Rao, S. S. (2013). Introduction: Sociology of education in India—Trajectory, location, and concerns. *Sociology of education in India: Changing contours and emerging concerns*, 1-23

Kumar, R., & McLaren, P. (2009). Processes of Knowledge Production and the Educational Complex in Capitalism. *Contemporary Perspectives*, 3(1), 1-13.

⁹¹Phalkey, J., & Chattapadhyay, S. (2015). The Aakash tablet and technological imaginaries of mass education in contemporary India. *History and Technology*, 31(4), 452-481.

time. Madan (2013)⁹² acknowledges Gandhian idea of education for Indian society which he elaborates by two terms namely 'freedom' and 'self-reliance'. He further mentions and I quote "Gandhi's interest, however, is of a much more radical orientation. He is not interested in how to get more people into positions of being lawyers and civil servants under the British. Gandhi is interested in transforming the social order itself. This interest in a larger, broader and more fundamental transformation continues to inform the best of Indian Sociology of Education" (Madan, 2013; p. 140). His ideas were in context of post-colonial India but the time when India is interacting with the neo-liberal and Global forces as mentioned above by Nambissan and Rao, the new wave of social change has been interacting with Indian education system Pathak (2007) acknowledges it as technocracy. This chapter caters the idea of digitization, which has been laying foundation of new 'Digital India' then education is an institution which demands a critical inquiry to look at the changing spirit of education system which is directly connecting to the analyses we have been doing in previous chapters. This is the final chapter and it specifies the idea of digitization in context of modern education in India. In Indian society education has been traced in different phases from pre-colonial to colonial and post-colonial but till twenty first century India has the cultural importance in its education system which can be seen in public education, religious educational institution and tribal education. All these highlights the power of democracy which makes India one of the biggest democratic country. In this way the relation between culture and education is important and to find out the reason of focusing upon education is quiet relative before moving into analyses.

⁹²Madan, A. Does Education Really Change.

‘EDUCATION SITE’ AS A MINIATURE OF SOCIETY

Education is one of the important institutions of society, which holds an important place while we study social change and cultural change in context of technological innovation and this new emerging digital modernity. Sociologist and educationist have a close relation with each other and it reflects in major writings of both educationists and sociologists who have mentioned in their writings that educational institution is a miniature of society, where learner is not a passive learner rather an active participant and he is getting a training for shaping the personality as a rational, critical and democratic citizen⁹³. In Durkheim’s functionalist perspective in his writings on education, where he highlights the need of education system for a progressive society and the important functions of education that is mentions is to transfer of knowledge accumulated by previous generations and to make a balance between civilization shift which we encounter in the form of generation gap⁹⁴. Durkheim rationalizes the education by exploring three important questions in his writings on education and the questions are: “what is education? What societal needs does education serve? And, how are these needs met?”⁹⁵

All the equations are very important and influential in the sense to understand education as a miniature of society. John Dewey highlights his idea of society as he believes that educations is serving society to inculcate the democratic value and ethos, which he feels are most important qualities of a personality of a citizen who wants an egalitarian society⁹⁶. Dewey has profoundly related the democracy and education in

⁹³ For further reference please see, Dewey, J. (2007). *Experience and education*. Simon and Schuster.

⁹⁴ Durkheim, E. (1956). Education and Sociology. Glencoe. *The Free Press*, 27(87), 124-26.

⁹⁵ Ottaway, A. K. C. (1968). Durkheim on education. *British Journal of Educational Studies*, 16(1), 5-16.

⁹⁶ Dewey, J. (2004). *Democracy and education*. Courier Corporation.

context of a progressive society and his idea of schooling to impart democratic ethos to produce responsible citizens of a democratic nation, he highlights the educational space as a miniature of society because at that space a child learns and interact with other learners from different categories such as caste, class, gender, race, age and so on and so forth. A child indulges in different activities and learns about his own society and people and the idea of democracy is inculcated through activities takes place at educational space in the process of knowledge transmission⁹⁷ .

Against Durkheim's functionalist view on education that caters the idea of education as a social need some sociologists who consider education as a miniature of society but not in the terms of fulfillments of needs of social solidarity rather to highlight the inequality in society. Pierre Bourdieu's analysis was critically reflecting on the idea of 'capital' which people poses in society with the virtue of cultural transmission of knowledge in the form of primary socialization takes place in the family and they carry that cultural capital with them to the educational institution.⁹⁸ Bourdieu critically observes this concept and the interaction of an individual with society and in the context of education he mentions that educational institutions are not value neutral as they combat inequality in institutions and nurture it in the form of appreciation of cultural capital and reproduce it for society, with whom the practice takes place. This is a critical side of miniature of society but ultimately society and education institutions are relatively more influenced by each other and place a complementary role.

⁹⁷ *Ibid*

⁹⁸ Dalal, J. (2016). Pierre Bourdieu: The Sociologist of Education. *Contemporary Education Dialogue*, 13(2), 231-250.

The overall analyses based on the different perspectives on education and society reflects that society and education is site of investigation when we encounter any sign of social change with effect of development and modernization. In contemporary context the change coming into society with effect of digitization needs to highlight the change coming in education system. When technological advancement is discussed so far in context of Indian Modernity one can relate it with e-learning and virtual mode of learning. In previous chapter the discussion over the emerging personality of ‘Digital Native’ was highlighted by educationist Mark Prensky who coined this term from the learning perspective but as we have observed in digital age the form of technology is not limited to education rather it has become a mass culture of contemporary society where it has occupied the ‘milieu of a learner’ and hence this e-learning is not limited to formal school or university premise rather it is accessed in informal life through social media at large (Erstad, 2012). This observation takes us to grab the larger impact over education which is not only limited to the technological change from print to digital rather it is leading towards structural change in education and society at large which is mentioned by Prensky by naming as “Digital Native”.

E-learning at formal or informal setting is an obvious effect of this cultural change in society with effect of digitization but there must be other changes are taking place which are beyond the obvious effect of technologically influence into education system. The larger impact that is more prominent and visible is the change in ‘pedagogy’ and that is through electronic medium at different levels of education and that is visible in the government’s policies. For knowledge transmission the use of digital medium is at the priority of the education ministry to uphold the agenda of “Digital India”. This has been taking place since years as mentioned in Phalkay’s paper regarding the implementation of technological advanced education in India

(Phalkey, 2014). Phalkey's research narrows down the political failure to implement the development model but the paper does not acknowledge the problem of imitation of west by "Indian Education System".

Indian development model follows the developed countries which is itself an over-ambitious dream be seen in the country like Indian, holds second position in population growth. Lack of resources, uneven distribution creates another problem to implement the model of developed countries. Indian education and Indian society is facing a drastic change with privation and globalization with effect of economic destruction. The information age is different from the Industrial age as the previous chapter concludes the spread of Digitization is not limited to one group rather it is reaching to lowest strata of society. It was mentioned in the second chapter that digitization has occupied our society and its related institutions too are occupied, then the relational aspect of education and society should also need to introspect. We have also observed through the research done empirically, where people mentioned that how the structural changes with effect of digitization which makes them to follow the current flow of changing social and cultural realm and learn how to operate digital gadgets, it shows that social change is not far from the experiences of people living in society⁹⁹. The observable statement highlights one important concept that is political power and analyzes it in relation with socio-cultural domain and takes this analysis further.

⁹⁹Referring from the field notes.

EDUCATION AS AN IDEOLOGICAL STATE APPARATUS

Education and society has a deep relation that we have observed through the lens of many sociologists ideas but we have been looking at the conceptualization known as modernization in democratic state, which is another dimension of politics of social development. When we have been observing the socio-cultural change in Indian society, one should underline the fact that globalization or technological advancement takes place in the form of a development planning done by government. Interestingly, education as an institution has a distinct relation with ‘political’ institution in the society and it is critically written by Althusser in his concept of ‘Ideological State Apparatus (ISA)’¹⁰⁰. To understand the importance of education for politics one need to understand this idea ISA, and then we can look for the relevance of it in contemporary technologically advance society. Ideological State Apparatus is the term coined by Althusser in his book ‘Ideology and the State’ where he focuses on the two kinds of state apparatus for the society. He mentions that one is state apparatus that Karl Marx highlights in his writing, to that Althusser identifies as repressive state apparatus but he highlights the second category which is does not work in a public domain rather it works in a more private category that identifies as ‘ideological state apparatus’ and it includes churches, schools, media and so on and so forth (Althusser, 2006).

Althusser characterized educational institution or the place of information and knowledge transmission as ISA and this highlights the power of ideological production and circulation of ideas for creating hegemony in society. It makes a huge difference in the social practices and the ‘hegemony’ is created with the force of ISA

¹⁰⁰Althusser, L. (2006). Ideology and ideological state apparatuses (notes towards an investigation). *The anthropology of the state: A reader*, 9(1), 86-98.

(Althusser). The consensus creation or the common conscience is the ideological reinforcement which is dominated by political elites with the help of ISA. This understanding is implying in the current situation of “Digital India” where new media and technologies are captured by political ideologies and the modern education also reflects the political influence that comes from the concept of ISA. India is a democratic state and ideological state apparatus is more workable than repressive state apparatus because of the existing constitutional power. Education and educational institutions have been getting influenced through the digitization form of technology and media but the spread of digitization in India is not only promoting the pedagogical change rather it is promoting the “technocratic ideology” for making India a “Technology driven knowledge economy” rather “rationale knowledge society” and hence the plan of Digital India reflects it on the web-portal, and it shows; *“The Digital India programme is a flagship programme of the Government of India with a vision to transform India into a digitally empowered society and knowledge economy”*¹⁰¹.

Education for emancipation and knowledge production for society or education for the purpose of earning money are two different orientations and the idea of this technocratic view creating a gap between the role of education as a social institution existing in society which was preoccupied with the idea of civilization of human species, knowledge production and knowledge transmission for the growth of society and to produce critical, rational and civilized people. Now it has been changing its rhythm because the idea of “digitization of knowledge transmission” in the forms of e-learning or virtual learning and so on and so forth triggers a political unconsciousness towards the consideration of technology as an extension of human

101 Retrieved from: <http://www.digitalindia.gov.in/content/about-programme>

labour. This idea in regard to ICT is controlling or directing the thoughts, ideas and imagination of man because of the infinite content availability over web portals which are part of milieu of a learner. The digitization is reinforcing the vision of technocratic society and the consumerist mindset which was mentioned by Baudrillard in the previous chapter¹⁰². This study locates the faster capturing of all the strata in society and this is how political policing takes place. ISA by the tool of digitization working towards the making of a technocratic society which is dominated by the forces of capitalism and this is to produce a labour for society which is highlighted as knowledge economy where people are consuming knowledge coming from western forces but will not be able to produce knowledge as the force of digitization making people live with liquid effect of modernity which is creating a fickle rationality that was observed in the previous chapter. To equate knowledge with education is a subjective task that is another point of departure.

KNOWLEDGE ACQUISITION IN “DIGITAL INDIA”

When education reflects the society and utilized in the form of ISA, the question occurs what Durkheim was raising that what needs does it fulfill for society it depends on the orientation what the functionalist interests are which also links with the idea of ISA where political interests are to be entangled with education and education is an institution which is utilized for politics. It was observed in the discussion but it also shows that the political apparatus involves subjectivity which defines what we are getting from education. It directly related to the idea of knowledge and merely

¹⁰²For further reading please see, Wardrip-Fruin, N. Montfort, N.(eds.). 2003 The New Media Reader. and Merrin, W. (2005). *Baudrillard and the media: A critical introduction*. Polity.

information. This again raises a critical question that what is knowledge and how it is different from information.

Michel refers Lyotard's view on a postmodern understanding of Knowledge; "This postmodern condition takes the form of a generalized state of affairs, i.e., it represents not merely a crisis of scientific knowledge, but rather a crisis in modern forms of social and cultural reproduction as such. The very generality of these claims leads Lyotard to investigate the present crisis not simply in terms of a crisis of science, but rather as a crisis of legitimation, i.e., of the ways modernity has traditionally justified and therefore grounded the pursuit of knowledge in the west"(Michel, 1997; p.345)¹⁰³.

The post-modern standpoint develops the critique of other formulations which are formulating a positivistic understanding of knowledge or scientific truth but what is the legitimacy of truth is again a question which intricate knowledge as Sorokin formulate his inquiry on 'meaningful interaction' and theorize his understanding in the realm of culture. He engrossed the understanding of unifying the ideas in cultural practices and where he remarks that this organization of integration is a 'sociocultural super-system' which is at a advanced level and to this predominant understanding of truth Sorokin defines as 'Culture Mentality'¹⁰⁴.

Jerome cites Sorokin to represent the categories of truth as cited here:

"For Sorokin, there are essentially three types of culture mentalities 'the Sensate' in which ultimate reality is seen to lie in the testimony of the senses, the Ideational in which it is believed that ultimate reality lies behind the senses, and the Idealistic in

¹⁰³ Michel, A. (1997). Differentiation vs. Disenchantment: The Persistence of Modernity from Max Weber to Jean-Francois Lyotard. *German Studies Review*, 343-370.

¹⁰⁴ For more detailed study, see McElroy, J. E. (1963). The Knowledge-Society Relationship in Pareto and Sorokin. *The American Catholic Sociological Review*, 302-315.

which the first two are harmoniously combined, giving rise to reason as the ultimate source of truth” (In Timasheff, p.239 cited in Jerome, 1963; p.311).¹⁰⁵

There are multiple views are present in this regard to define what knowledge is, but in digitization and in this information age the idea of knowledge is transforming into mere information acquisition and the statement gets validations from the media theory of ‘Hot Media’ by McLuhan, Information age by Castells, Bauman’s Liquid rationality, to these sociological claims the knowledge is transforming into acquisition of information but the reflexive nature of knowledge acquisition is faded away in the digital age¹⁰⁶. These ideas explains about the critical perspective towards media comes from the medium but did not talk about its authentication. Here the debate is not only on the impact factor of media of information transmitted to learner but also the questions arises for the “digital medium” over which the infinite data is available and learners dive into it to learn and encounters such a conflicting situation where one gets no authenticity of the information. This age is called information age and this study holds agreement on the basis of the analysis of small empirical exposure. On web portals a learner gets information easily at a cheapest price and believes that all the sources of information are logically right. This is also because of the power of digital media being a provider of hot and cold media.

Information and knowledge are not poles apart but for knowledge one needs to have a rationale and critical perspective which ends with the Digitized media as described by the nature of technology. The researches on digitization of study resource, Library and Government’s initiatives known as SWAYAM, NPTEL, to promote MOOCS and so on and so forth are the site to locate the difference between the knowledge and

¹⁰⁵ For description of this idea, see: F. R. Cowell, op. cit., Chap. I; and Nicholas Timasheff, op. cit., p. 239

¹⁰⁶ For further description , see Peter John Williams, Valid Knowledge and the Academy , Higher Education

information¹⁰⁷. The “digital project” is one hand it shows a message of breaking the barriers of rigid system of reproduction model of inequality in academia by providing courses at virtual mode or e-learning for all but on the other hand it promotes the certification for getting the information¹⁰⁸. The question of education system arises here that the compartmentalization of kinds of knowledge providers will make a change in system where the idea of getting education in best institutions and on regular mode is certified equally with e-learning. The model of development in education is only looking at quantity over quality which will certainly lead to absolute privatization of higher education. A learner gets authentication of getting information and at the same time some learner gets the same value for knowledge production or attainment. The larger message it gives that the lack of consciousness towards the idea of knowledge and information reinforcing this technocratic attitude which will lead to huge rate of unemployment.

With the liquid rationality effect, the knowledge becomes instrumental and hence it subjectively provided as ISA to the consumer and this instrumentality of ‘knowledge’ in digital age leading to technocracy. It does not end here but technocracy has a deep rooted instrumental role to play in education which is becoming a contemporary reality and it needs to be explored further.

¹⁰⁷ Gaur, R. C. (2003). Rethinking the Indian digital divide: The present state of digitization in Indian management libraries. *The International Information & Library Review*, 35(2), 189-203.

¹⁰⁸ Hirwade, M. A. (2011, September). Digitization of theses and dissertations: status quo India.

In *Proceedings of the 14th International Symposium on Electronic Theses and Dissertations, Cape Town, South Africa* (pp. 13-17).

EDUCATION, TECHNOCRACY AND “KNOWLEDGE ECONOMY”

‘Digital India’ is popularized recently but it has been formulated with the neo-liberal vision of Indian development. S. Radhakrishnan writes about the neo-liberal political rationality which was formulated lately by Dr. M. Singh on June 2005 and under his guidance an elite national knowledge commission established to reinforce the ‘Knowledge economy’ in India which was established to fulfill some goals inspired by the social and economic development through knowledge economy.¹⁰⁹

Radhakrishnan critical claim of this commission being elite and the knowledge association with the economy was also reinforced the brain-drain process has been noticed in last decade the growth of software experts moving to abroad. It was not a figure India as a developing country got for its development and it has been noticed as well in the writing of Radhakrishnan and I quote; “Thomas Friedman (2005), presents India as a quintessential example of success in the knowledge economy. Far from being poorly paid sweatshop workers, Friedman portrays Indian knowledge workers as having cutting-edge skills and an ambitious outlook, able to compete with their counterparts in any part of the world. The book falls in line behind a spate of recent publicity concerning India's success in information technology in the New York Times, Financial Times, the Economist, Business Week, and many other high-profile publications. Most of the publicity projects an image of a "new" India, with the figure of the Indian knowledge professional at its center” (Radhakrishnan, 2007; p.141).¹¹⁰

To this vision the World Bank report (2005) adds the reasoning of adoption of knowledge economic vision, the report was titled as ‘India and the Knowledge

¹⁰⁹ For more details, see <http://www.knowledgecommission.org>.

¹¹⁰ Radhakrishnan, S. (2007). Rethinking Knowledge for Development: Transnational Knowledge Professionals and the "New" India. *Theory and Society*, Vol. 36, No. 2 (April), pp. 141-159

Economy: Leveraging Strengths and Opportunities' claims that if the right kind of Government policy incentives are provided the country will be able to enhance its economic productivity by making more effective use of knowledge. In the entire concept of the knowledge economy and knowledge society, universities and other higher educational institutes play a pivotal role. It is important to see how we can establish strong relationships between universities and the knowledge needs of a post-industrial society by focusing on the increased importance of knowledge generation and organization for economic and social well-being (Lindenstein, 1995).

These supportive arguments mentioned above are to formulate the political idea of the knowledge economy in India and the reasoning behind following such a vision. But the instrumentality of this vision is acknowledged here to understand government's focus on "Digital India" with the effect of changing force of knowledge economy at a global sphere and in India if was already established which is away from a critical reasoning of knowledge society. It is certainly assumed that it will develop rationality among society and to produce knowledge which is reflexive, not instrumental. With the emerging force of digitization, Government has step ahead and not only looking at knowledge economy rather the technocracy of knowledge economy has made it a point of discussion. Government has set up a path to economic development for emerging middle class which is involved as a labor of knowledge economy and the role of the middle class is also visible in the changing culture. As mentioned in the information age the culture is changing and the idea of education and work is also going through a change. The critical outlook is for the emerging 'Technocracy', which is taking over the human rationality and with this technocratic vision the contemporary development has been moving "forward". C. P. Chandrasekhar, replies to this kind of development from an economic argumentation with the example of

U.S., supposedly better economy but the shift into this economic orientation, running towards IT industry and the knowledge economy made a bitter condition of joblessness and vulnerability in service sector because of the information boom in society.¹¹¹

In contemporary reality of India has been overshadowing the misinterpretation of the coverage of Digitization by the concept of the knowledge economy. D. Gupta provides a critical vision of Indian Modernity with the highlighted four pillar of Indian Modernity; Social, Technological, Political and Economic respectively when he formulates a critique of vision of development in India in his book ‘Mistaken Modernity’,¹¹². But technocratic idea of knowledge economy under “Digital India” is leaving the most important pillar of ‘Social Development’ and curbing the scientific knowledge of society. In the digitization they focus on education and technology largely for achieving their goal of development with the technocratic spirit but the idea itself of education is changing in this technocratic system. In democratic system the need of education and the value of education was highlighted by J. Dewey (2004) in his famous writing known as “Education and Democracy” and the need of education to produce citizens with democratic values is a major goal of education.¹¹³

In the technocratic vision of development the outlook is to produce the skilled labor or providing information and hence it is curbing the idea of production of rationality or rationale and critical citizens for country is ignored under this idea of education.

¹¹¹ For further reading, see Chandrasekhar, C. P. (2006). Who Needs a " Knowledge Economy": Information, Knowledge and Flexible Labour. *Social Scientist*, 70-87

¹¹² For elaborated argument, see Gupta, D. (2000). *Mistaken modernity: India between worlds*. HarperCollins Publishers, India.

¹¹³ Dewey, J. (2004). *Democracy and education*. Courier Corporation.

The argument raised above highlights the ‘changing spirit’ of education which is the theme of this chapter and it also highlights the study of social sciences and the need of providing social science education in contemporary “Digital India” is changing. Social science study found its existence in the eighteenth century when the scientific modulation took form and formulated to highlight the validity of scientific knowledge of society which is away from common sense that is highlighted by August Comte and Emile Durkheim¹¹⁴. Comte’s analyses of ‘Hierarchy of sciences’ was influential to find the ground for the study of society and its importance in academics. There were critiques against the Compton analyses came, in the later part of the development of social science but they establishes their own existing perspective as the approach of social science is wide and accommodate differences and the ‘Structure of Scientific Revolution’ by Thomas S. Kuhn debates around that the validity of knowledge comes from refutation¹¹⁵. Earlier scientific knowledge was limited to mathematics and natural sciences but when social science came in existence and the need to study was found a necessity made a difference in the knowledge society. With time social sciences with its scientific methodology developed itself in a strong theoretical and empirical grounding, A. Giddens (1976), mentions about the development of social theories.¹¹⁶ It was the development of social science but this changing spirit is catering the different side reality of declining social sciences and the important contribution in this decline is because of the technocratic vision of development which is transforming the spirit of education into technocratic.

¹¹⁴ Refer Durkheim’s Sociology and Common sense. And August Comte’s writing on Hierarchy of sciences.

¹¹⁵ Hoyningen-Huene, P. (1993). *Reconstructing scientific revolutions: Thomas S. Kuhn's philosophy of science*. University of Chicago Press.

¹¹⁶ Anthony Giddens, Classical Social Theory and the Origins of Modern Sociology, *American Journal of Sociology*, Vol. 81, No. 4 (Jan., 1976), pp. 703-729

The decline of Social sciences was noticed by P. Chatterjee (2002), in his writing on ‘Institutional context of social science research in south Asia’ and it has reflected in all the important factors and activities of state which have been reinforcing this declined under the head of privatization of education and the research under public universities are hurdle in that neo-liberal planning. Chatterjee notices the relative factors such as fund cuts in universities in regard to social sciences, new rules and regulation, no improvement in infrastructure and projects but this analysis was catering a larger perspective of south India which has also mentioned about India specifically (Chatterjee, 2002)¹¹⁷. It was also visible in Gulbenkian Commission report which was also critiqued for its instrumental vision towards social science education and Wallerstein's perspective on social science was characterized as far away from a social scientist's vision as that was carried a narrow approach to understand the scope and importance of social science in education and society¹¹⁸.

These arguments are drawn here for highlighting the subjectivity of state, influenced from technocracy and economic vision of development with the flow of digitization. In the current flow of Digital India, it has been noticed that from different means put forward by the state to diminish the productivity of ‘social science education and research’. It has been catching the rigor in the current flow where the schemes and policies implied on universities to limit the production of rational and critical minds and it gets visible when the agitating students raise against the states imposed policies

¹¹⁷ Altbach, P. G. (1991). Patterns in higher education development: Toward the year 2000. *The Review of Higher Education*, 14(3), 293-315. Slaughter, S., & Rhoades, G. (2004). *Academic capitalism and the new economy: Markets, state, and higher education*. JHU Press.

Levinson, D. L. (1991). *The Higher Learning and High Technology: Dynamics of Higher Education Policy Formation*. Sheila Slaughter.

¹¹⁸ For elaborated critique, see “ Burawoy, M. (2008). Open the social sciences: To whom and for what?. *Portuguese Journal of Social Science*, 6(3), 137-146.

and rules. 'Occupy UGC' was an example of that where university students raised their voice against the imposed rule of cutting the fellowship which is provided to students for doing social science research in India in the public universities but the idea of privatization and the technocratic vision of government could not succeed because of the strong resisting force of student unity against the UGC.¹¹⁹ It has been also noticed in the 'Gujarat State Higher Education Council Bill 2016' apart from the fund cut, the transforming atrophied autonomy was noticed in the Bill which imposed multiple rules, for example, the pre-decided themes of research in social sciences, research interest of researcher or professor will not be allowed to exercise and this process of research is changed into the technocratic practice which will curb the spirit of social science which is for society.¹²⁰

The cases mentioned above highlights the vision of state for development of the country through technical education and for that the 'All India Survey on Higher Education (AISHE)' represents the fast growth of the technical experts in India. Data extracted from AISHE suggests when we compare 2013-14 with 2015-16, this gap of one year's shows the impact factor of this new technocratic vision in education and the increase in researchers have been turned from 9 percent to 11.7 percent in Technical and Engineering subjects where the increase in social science is only from 2 percent to 2.3 percent¹²¹. The digitization which is showing the significant need to digitally empower the country is not being ignored here rather the transformations in the education because of the technocratic vision of development is curbing the civilization development is the point to be highlighted in this chapter. The arguments

¹¹⁹ <https://thewire.in/16135/what-lies-behind-the-occupy-ugc-protest/>

¹²⁰ http://www.epw.in/system/files/pdf/2017_52/13/CM_LII_13_01042017_Dhananjay_Rai.pdf

¹²¹ For elaborated reading, see http://mhrd.gov.in/sites/upload_files/mhrd/files/statistics/AISHE2015-16.pdf and http://mhrd.gov.in/sites/upload_files/mhrd/files/statistics/AISHE201314F.pdf

based on the empirical data and sociological inquiry suggesting the need to understand the social sciences has an important place in society which Durkheim mentioned while referring to the value based education and to produce the conscience citizens and Comte's view to highlight social science as science of society which has a significant place in education and knowledge production. Not only for economic development but to ensure is the egalitarian approach of development the task of social science research and education. A. Pathak (2017), acknowledges this need in his writing about social science learning and education after the contemporary force to change the spirit of education and transforming it into a technocratic society from a democratic society which is going with the flow and I quote; "For instance, the leading social science departments cannot take any student in this academic year. At a time when because of the hierarchy of knowledge traditions (science/commerce vs. humanities/social sciences), and massive asymmetry in the quality of public universities (most of the universities have been reduced into factories for distributing degrees and diplomas; there are only a couple universities left which retain the tradition of critical pedagogy and meaningful research) in India, it is a severe blow to the cultivation of critical social sciences and emancipatory liberal arts"¹²². In the democratic country the autocratic vision with the force of technocracy in the form of digitations is changing the spirit of education but the education for democracy is another social reality which has been mentioned in the writings of social scientists such as D. Gupta's writing on 'social science and democracy' and J. Dewey's prominent work 'Democracy and Education' connects with Pathak's concern as the need for democracy is to be forgotten from the minds of people because of the power

122 For elaborate dreading, <https://thewire.in/120020/the-ugc-gazette-and-the-politics-of-knowledge-production/>

of technology and the digital culture at large reinforcing the liquid rationality in this post-modern society.

The argument based on recent steps taken by the current Government for the development of country with their technocratic vision to transform India and equate with the global power of the world and developed countries. This vision is implemented with the idea of “Digitization” and the state has its vision to change the idea of education as the provision of mass education through e-learning and MOOCS have its intentionality and reflection that is the failure of state to provide quality education to all. The e-portal can provide information and produce certified labor but it will be beyond imagination to produce citizens and human resource for “Democracy”.

This chapter brings in analyses that education is one of the most important social institutions for society and nation. The development of any country also reflects from its education which is acknowledge inculcating skills and values in the learner and gives a vision for his all-round development. In the changing nature of culture one cannot control the change but need to highlight the need for training of learners in a proper setup to insure “digitization” will not overcome human rationality and vision. This is to highlight the determinist’s view where they have noticed the power of technology which we have studied in chapter one and also the counter force of rationality will help India grow and compete with the Global education system.

The technological deterministic picture of “Digital India” is not underestimated rather in context of developing India it is analyzed to highlight its larger impact which is based on the goal to compete with developed countries and world power. Digitization itself is a west-led modernization and in Indian context it can be create a negative

impact over the human capital as the ignorance over the power of this new form of technology and also the relative measure of cultural transition which is making it to flow in the life of a learner. The learner has a world-of-information and this does not catered by the planning of “Digital India” program. The highlights takes us to think over the need of education which Durkheim raised and the education system and its value for society was his research and here in contemporary context the education and its spirit is changing but one need not go away from the basic question of what kind of education will it provide and what kind of functions will it play for society as it will interact with society and will lead to a product of technocratic attitude. The idea to acknowledge the function of education is not limited to information and skill which is highlighted in the planning rather it should be taken care of that education has a much larger responsibility to produce citizens first and human resource later. That is what Dewey stresses in his writing when he looks at the need of democratic society.

CONCLUSION

This study, establishes the arguments on “digitization” taking place in India and its larger and explicit encounter with society and its institutions, is highlighted globally here. Though while formulating theoretical connections with secondary data it seemed to have lost linkages at various places but I hope succeeding in locating the main idea and its critical analyses within their proper sociological context.

Digitization is studied with criticality over the idea promoted by the “state” as a revolutionary force which is changing India and making structural changes. This idea of development based on information technology is very narrow in itself as the prior studies suggests that the basic needs are yet to meet for every citizen in India and hence the idea of providing a virtual world for people is making this sad reality rigid that people are spending their basic pay on “digitized system”. This analysis largely based on secondary data seeks attention as the whole idea of digitization is not limited to changing the mode of operations rather it is transporting a culture which is approaching as a giant in the form of “mass culture” of virtual living. This is highlighted from other studies done on technology and the deliberation over social shaping of technology or technological shaping of society that there is a circular progression works between the society and technology. The whole dialogue over culture of technology which was done in chapter one accomplishes this idea that the digital culture is spreading with the larger interaction taking place between society and technology. The “Digitization” process also critically understands it and locates it as an agent of social change by historical tracing of this form of technology in context of contemporary Indian society and culture. This study highlights and, to furnish the

technological determinist's arguments it comes up with more logical and sociologically critical discernment where the force of technology is acknowledged while studying the mass culture spreading with "Digitization".

Education and Digitization is not a separate study but a part of whole process of social change where education is contributing in both ways to reproduce the technocracy i.e. state's agenda under Digitization and to produce human resource for country. Digitization is changing education not by simply changing the mode of knowledge transmission or by providing an alternative to cater the need of mass education rather to increase the inequality in education sector where privatization is taking place and from school to university education the idea of providing private education will be reinforce when public funded system will run for quantity over quality of education. This debate over privatization and its vision is catered by many sociologists and educationists in India and J. B. Tilak (2008)¹²³ who has explored the education and privatization from multiple perspectives but the role of "Digitization" and its indirect relation to the rapid interaction to capitalism is yet too explored by concerned researchers. This study make connections with education and the larger concerns which is highlighted in regard to education is on the changing spirit which builds a tight cause an effect relation between information and technocracy rather education and democracy.

Education is focused by state and the utilization of education as an Ideological State Apparatus is another point to be noticed which comes from the theoretical connection with Digitization and Althusser's theory is qualifying in this context of technologically advanced education system which is a product of digitization. One need to understand the direct relation of increasing technocracy and decreasing

¹²³Tilak, J. B. (2008). Higher education: a public good or a commodity for trade?. *Prospects*, 38(4), 449-466.

rationality which certainly ignored the grounds of democracy in India and all that is covered with the “Development Plan” and revolutionary “Digital India” program. Here in the conclusion one question is important to be raised for Indian education system which is destroying the public education system and the logical reason behind continuous steps which reinforced the privatization was the negligence of quality over quantity. Goal of achieving mass education in India will be accomplished when the hierarchy of modes of education providers will reduce but with digitization the hierarchy will increase. On the one hand the mushrooming of private institutions with digitally advanced infrastructure establishing in India and on the other hand the initiative is promoted under the plan of “Digitization” that e-learning is a great idea and path towards development to overpower the developed countries and to provide expert knowledge to masses. In this way the duality of political planning is coming out and to lower down the quality in Education and to ultimately make it privatize and hence the idea of digitization and e-learning is not to inculcate skills and knowledge rather to lead the masses to opt for private institutions and reproduce the hierarchy for lower strata to stay in the state of extreme poverty.

The lower strata to which we consider lower class as this study traces the existence of them in homeless people in capital region and under the effect of “digitization” this class will be the target group for providing the education through distance or online modes but these are the groups who need institutional training most as their social and cultural reality demands much assistance being a first generation and resource less learner. The idea of “digitization” in for Indian education system again will reinforce inequality and as highlighted in the chapter three that this will lead to make clear distinction among learners who are getting certified technocratic education over knowledge.

One important aspect of planning of “Digital India” is to reinforce knowledge as said in official documents but the program ultimately reinforcing deprivation and disparity in society as T. K. Oommen (2004)¹²⁴, traces about development discourse and mentions about “cognitive blackout”¹²⁵ in context to all the approaches to development and put forward the agenda of Development Pluralism as the socio-cultural reality of India is different from west and hence the western approach should not be followed in the same way. This is one important factor but in this study we take it further and get that not only the idea of “follow the western model” but also the competing with west and other developed countries is not making any justice to India’s own development planning and calling a treat to democracy as it shows the changing spirit into technocracy which is competitive but not sustainable.

The social change with “Digitization” which is highlighted overall in this study helped to reach the conclusion that technology is a strong force not only an agent as studied by sociologists as mentioned in most of the writings which was analyzed in literature review. Technological advancement as Ogburn was asserting invent over time with the socio-culture change but he did not focus on the cyclical process of change as it is coming out from this study the effect of globalization and the cultural shift which reinvented the technology. The contemporary reality as a cultural change is a product of that invention took place and now giving birth to a new socio-cultural reality. This is highlighted from the secondary data study in context of historical traces and sociological critics of the texts that technology in the context of

¹²⁴ For further reading please see; Oommen T. K. (2004). *Development Discourse: Issues and challenges*. Regency Publication, New Delhi.

¹²⁵ Cognitive Blackout is a term mentioned by Oommen in his book *Development Discourse: Issues and challenges*. Regency Publication, New Delhi. He elaborates on it that it is common to all. It criticize all the approach of development namely disparity, distress, discrimination and displacement and come up with a suggestion as a remedy that the nation needs to adopt the development pluralism which can bring sustainable development.

“Digitization” is not only a form of IT rather it will certainly bringing a new wave in society where people are accommodating multiple shifts at the same time. The shift in nature of society and the shift in functions and structure are drastic and noticeable in day-to-day life. This is not limited to communication rather society has changed the mode of work and lifestyle. There are many researches in supports or critique of this change as mentioned in chapter 3 but one important thing is the social change which is taking place globally and India being a culturally diverse country is accommodating it rapidly.

The change in society is highlighted in every other activity work, life, and leisure and so on and so forth. This change is promoted in masses as a development which is again a positive sign that Indian masses are willing to go ahead with the progression but the rigidity in structural is basically reproduced by the idea of “Digitization” as the negligence over values and rationality and increased technocracy and that too limiting rationality among the masses. This factor is becoming a turning point of this study where one can find the dearth of rationality which is curbed by the effect of “Digitization”. The technological advancement is not the matter of concern but the adoption from a particular context e.i. west and instigating in Indian context has been a problem since India trying to compete without developing their own model of development which will cater the diversity and hierarchy present in society.

In the arguments and analyses it was also found that the cultural production at the mass level is becoming reality in “Digitization” as the bigger role of imposition of state and the nature of media working as an extension of man at a very low cost. From empirical data and the supportive research on the purchase of smartphones which I highlighted in the second chapter also make it a signal to understand the power of this new form of technology as the older forms had some kind of barrier and also that also

required skills or training of a particular to access but this technology is reaching to masses but it also create security issues as mentioned by Yolmo in research that India still lack to provide a proper security to its digital system of work and that may lead any country in risk. Digitization is a complex process but make system that simple and the user being a learner or participant gets addict to it. In this way will it produce skilled robotics technocrats only and e.i. labour production is the job of digitization.

Y. Singh and A. Pathak deeply concerned in this regard and acknowledge this technocratic wave and highlight it with critical social outlook. Society must address this and in twenty first century when society is heading towards social change and working class is becoming the larger part of society as a whole then the need of an educational institution is must where the nurturing of a personality of learner from a common being to a responsible citizen is shaped under the surrounding of a facilitator and also the training provided by them. The Socio-cultural researches suggest this idea of human development that without a facilitator and scaffolding it will produce a destructive personality with the liquid effect of modernity and the outburst of information without any authenticity.

The analyses is just going with the hypotheses where the exploration of the social change was supposed to measure in context of “Digitization” and its relation to modernization but there were multiple debates over modernization with the technological advancement was highlighted. This study finds out that the idea of modernization is evolving and in context of technological advancement it is inventing itself as Ogburn also mentions. “Multiple Modernity”¹²⁶ is another debate raised by R. Bhargava where he not only acknowledges the IT complex as one of the major factor

¹²⁶For further explanation please see; Bhargava, R. (2000). Are There Alternative Modernities. Culture, Democracy and Development in South Asia. New Delhi, 9-26.

for modernization in India but also the reason behind the capitalistic trend in this modernization. After analyzing the digitization in relation to modernization this study makes a broader understanding of modernization which takes place by the agent of social change with effect of the form and content both. This effect creates much drastic change in socio-cultural realities as coming with the wave of modernization and accommodated by masses at large number. But the rigid practices of structural reality of Indian society remains the same as the force of technology is not utilized to promote democratic ethos rather the technocratic attitude as the production of self of professionally qualified technocrats becomes the focus when the IT complex over power the knowledge society.

Modernization is certainly a positive term but as critically raised voices against this concept under the categorization of post-modernism, asks to question this wave as well. Post-modernist's concerns that there is no such reality called modernization and this contestation is based on the rigid structural realities which are the same as before. Here also if one analyses the structural realities are same under "Digitization" and people are practices their own little traditions but changing the medium into digitization for substantiation there are changes in work life based on digital medium but the hierarchy is same and similarly people are spending time to explore global culture but still chose to practice their own. Hence the modernization in the form of digitization is another fake category rather one can see it as a transition or shift in society which largely based on technological advancement but one cannot consider it as a symbol of modernization in India.

With this critical note this study largely covers the emerging idea of "Digitization" and its relation with society at large and its specific knots with education. The role of state to promote digitization and technocracy is done with the investment under the

captions i.e. skills and knowledge economy. This is the core of the development planning and the “Digital India” is a west led modernization where Indian democracy is ignored by the state. It also highlights the relation between state, society and education which together are studied under the larger conceptualization as we mentioned in introduction that is known as “Digitization”. It is not merely the technical value attached to this term rather the socio-cultural value attached to it is very critical which was explored in this study. It comes up with the conceptualization of “Digitization” as a force to bring social change but it has more to do with functional change not the structural change. Society at large has different social institutions but here we focused on education to understand the politics of knowledge which is framed in the form of development and modernization in India with effect of Digitization. Repeatedly the word “Digitization” is use but the core idea to bring or emulate the development politics is not digitization but the technocracy which is fostering Indian society to overpower the developed nation without understanding the structural reality and need to cater the differences parents in Indian society.

State run educational institutions are destroyed by the technocratic self of professional qualified which promoted or favored privatization but by digitization the system is not only reinforcing capitalism but also the creating a certified army of information acquired labour. One needs to understand “Digitization” in larger context of society and its needs not only the “ideological framework” of development and modernization.

This is how this study ends with these conclusions, made on the basis of secondary data study. It acknowledges the present state of digitization which is spreading as a technological boom in India and reaching to each and every section of society but the utilization may vary. This study also factually acknowledges the state’s agenda to

make it a quint essential part of Indian society and development planning in all the ministries from defense to healthcare and from communication to education. Here the critical sociological perspective demands to raise a question on the idea of development and modernization itself which already had explored by many sociologists in India and the west but the need to focus on the changing reality under digitization is not estimated under the government planning. It shows that the idea of “digitization” was understood only as another latest technology but it was not estimated in the context of socio-cultural effect as the changing reality is very different as mentioned in the documentation of “Digital India”. It only looks at the service provided under this program and the outcome is not taken care of from its social aspect. This study concludes it from a sociological point of view that it will lead to technocracy at a high rate with decrease in rationality at a fast rate.

This study made the above said argument which could further build on the lines of changing structural realities in India which Prensky highlights in context of America that the emergence of two classes in this technocracy known as “Digital Native and Digital Immigrants”. That would be a critical study catering social change and the changing structure in context of mobility in Indian society. This study highlights the need to focus upon this contemporary shift with effect of emerging “Digital Society and Culture” and that demands the critical inquiry not only from the science and technology studies but also in Sociology. The limitation of this study is lack of secondary resource in Indian context as it is very new to India sociology but an important conceptualization. It also requires an extensive empirical research from a sociological lens. India is a diverse country and for that matter it needs to be studied in category like rural-urban and that must be a different study altogether. But as an end note, this study acknowledges the latest form of technology worth to be

highlighted and formulate a connection with society, culture and social institution
which explore the topic from a sociological lens.

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