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## RESEARCH ARTICLE

### DIGITAL EMPOWERMENT AND INCLUSIVE GROWTH

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#### ABSTRACT

This is the Age of Empowerment. Empowerment of individuals and communities means increased control over life and coping skills. With and through ICT people's empowerment is quick and far-reaching. With information technology people gain new abilities and ways to participate and express themselves in a networked society. However, there is need for such mechanism to explode the myth that digital empowerment is urban-centric. This paper explores ways and means of digitally empowering marginalised communities living in socio-economic backwardness and information poverty. It emphasizes on simple smart technologies and skill-based activities and projects that provide an effective entry route for learners, who are disengaged with the learning process, or who are unconfident with new and high technology. Successful and timely implementation of these projects will enhance India's competitiveness. The paper envisages digital empowerment as a way towards inclusive growth in India.

**Key words:** Digitalisation, education, empowerment, ICT, inclusion, skill, smart.

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#### INTRODUCTION

Today's illiterates are those who are digitally static. India that aspires for a double digit economic growth, e-literacy and digital empowerment are key factors. The last few years have seen a renewed public focus on expanding frontiers of inclusion in general and financial inclusion in particular. Digital India has kick-started a major disruption in banking, payments and the like, as never before. All this will hopefully unveil the promised revolution of a less-cash society, financial inclusion and a savings culture which can be beneficial for the economy.<sup>1</sup> But India needs more than financial inclusion. It needs social and political inclusion too. Inclusive growth necessitates people's empowerment in more than one ways. In this regard both state and citizenry have their role cut out. Governance and participation are the two pillars of inclusive growth as also of total empowerment. Globalisation and IT revolution have made it possible to have market integration and virtual integration of communities as people march on the road to progress and prosperity. Yet the admissible fact is the trend of exclusion. The real picture of India today is one of marginalisation in the midst of globalisation. Human poverty is seen in skill shortages, disguised unemployment, gender inequity etc. Overcoming these challenges and obstacles means overhauling the present system of governance and structures of growth,

with sincere efforts of making India a digitally empowered economy. Nature of technology, its cost effectiveness and utility have so far been conducive for development and empowerment. Time has come to move from digital divide to digital multiply.

**In the background of these factors, the objectives of this paper are**

- to conceptualise the digitalisation of India;
- to review some e-governance initiatives; and
- to link digital empowerment with the philosophy and practice of inclusive growth

#### MATERIALS AND METHODS

The article is based on secondary sources of data such as journals, book and newspapers.

#### Coming out of Marginalisation

Marginalisation means treatment of a person, group, or concept as insignificant or peripheral. Social exclusion, or social marginalisation, is the social disadvantage or obstruction and relegation to the fringe of society. It refers to the process of pushing a particular group or groups of people to the edge of society by not allowing them an active voice, identity, or place in it. Through both direct and indirect processes, marginalised groups may be relegated to a secondary position or made to feel as if they are less important than those who hold more

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power or privilege in society. For instance, in a university students from marginalised groups can be the target of negative beliefs, behaviours, or judgements from others. Individuals and groups can be marginalised on the basis of multiple aspects of their identity, including but not limited to: race, gender or gender identity, ability, sexual orientation, socioeconomic status, sexuality, age, and/or religion. Some individuals identify with multiple marginalised groups, and may experience further marginalization as a result of their intersecting identities. Marginalisation can manifest in subtle or overt actions.<sup>ii,iii</sup> Coming out of marginalisation requires both self and collective efforts: high confidence and self-esteem, morale boosting counselling, incentives and other affirmative action. The country badly needs “integrated” digital empowerment that can break the shackles of poverty and deprivation. While the focus is on transforming the government-to-citizen, government-to-business or government-to-government dynamics –there is a need for this programme to go beyond directional statements and accelerate the vision for a virtually integrated India, which is already home to 850 million mobile users and 220 million Internet users. The benefits of Information & Communication Technology (ICT) and ICT enabled services must reach the otherwise marginalised people. Their choices and voices are the real tests of empowerment and enabling education. The spread of digital technologies, as well as advances in energy and genomics, can raise the productivity of agriculture (including water management) and agribusiness (including agri infrastructure).

In case of India digital technology could be one of the ways of changing agrarian crisis to agrarian dynamism.<sup>iv</sup> Secondly rural governance and services must be given a face lift through e-panchayats, e-health, e-sanitation etc. Digitalisation can redefine how services such as healthcare and education are delivered and contribute to higher living standards for millions of Indians by raising education levels and improving healthcare outcomes.<sup>v</sup> While digitalisation is one of the answers to marginalisation there is also a fear from digital marginalisation. Civil Society Organisation (NGO), under the auspices of Centre for Information Technology and Development (CITAD) raised a voice against digital marginalisation of women in Nigeria. CITAD said, a research conducted in four communities namely Doganjiji and Azare in Bauchi state and Dakata and Zaura Baba Kano state showed low digital usage by women in the North due to several factors, therefore, there was need to bridge the gap.<sup>vi</sup> Like other rights, the marginalised groups need to be sensitised about their digital rights too. This is not in any case a one-off affair and time-bound. Constant vigilance is required to deal with the flip side of digitalisation. The January 2016 edition of *Global Information Society Watch Journal* presents stories from around the world on how the politics of sex and sexual rights activism takes place online. It shows how generally accepted sexual identities, as well as marginalised sexualities, are expressed, regulated and moralised on the internet. The journal shows how this relates to the threats of surveillance, censorship and online violence. One article describes results from research in Kenya about how LGBTQ activists use technology and the risks and barriers in doing so.<sup>vii</sup> What about India? As far as India is concerned it is interesting to know how India is faring in the inclusion indicators. The significance of this knowledge stems from more than one reason. Firstly, the country is geographically and demographically a very large one.

Secondly, it is the biggest democracy in the world. Thirdly, it is an emerging economy today mainly with rapid strides in the realm of foreign investment, information and communication technology (ICT), higher education etc. Fourthly, its development path is strewn with the challenges and opportunities of gender equity, global financial crisis, demographic dividend etc. A socio-economic analysis of inclusive development in India, is thus, justified. Needless to say inclusive development can also be a political compulsion and human need in an ‘ideal’ society in a justice-rights based framework. In more simple terms, in a civil society absence of ‘inclusion’ makes real development elusive.<sup>viii</sup> Indian women have lower literacy rates and are less frequent internet users, so will become more marginalised as India’s digitisation progresses. A UNICEF report has published a new study into the digital gender gap. “Globally, 12 per cent more men than women used the internet in 2017. In India, less than one third of internet users are female. Recently, India has made a public push towards a more digitalised economy, including reducing dependency on physical cash.

If girls and women remain digitally illiterate, they risk becoming further marginalised in society and at home,” says the 2017 edition of UNICEF’s annual flagship publication “the State of the World’s Children Report”. The report uncovered that only 29 per cent of India’s internet users are female, and their use of smart phones, for example, can be limited depending on having to borrow family member’s devices. Further, some rural communities have local rules which prevent women from using social media. The report cited “[a] nother village in Uttar Pradesh banned unmarried girls from using mobile phones along with a ban on wearing certain kinds of clothing, such as jeans and T-shirts.”<sup>ix</sup> India is one place in which the digital divide highlights society’s deep chasms. The report calls for more unified access, and seeks to highlight the myriad causes of the digital gender divide like social norms, education levels, lack of technical literacy and lack of confidence among them — but is often rooted in parents’ concern for the safety of their daughters. Many fear that allowing girls to use the internet will lead to liaisons with men, bringing shame on the family. For most girls, if they are allowed to use the internet, their every move is monitored by their parents or brothers. In a society that is still largely patriarchal, for girls, traits like deference and obedience are often valued over intelligence and curiosity. In some households, technology is not seen as necessary or beneficial for girls and women.<sup>x</sup>

### Digital Literacy and Inclusion

India faces the big problem of structural unemployment and underemployment, disguised unemployment improper trainer and worker relationship, and unequal distribution of wealth today.<sup>xi</sup> This is mainly because of digital illiteracy and shortage of soft skills in many places. The word “literacy,” meaning the ability to read and write, has gradually extended its grasp in the digital age until it has come to mean the ability to understand information, however presented. Increasingly, information is being offered in a new way: instead of black letters printed on a white page, the new format blends words with recorded sounds and images into a rich and volatile mixture. The ingredients of this combination, which has come to be called multimedia, are not new, but the recipe is.<sup>xii</sup> Communication has fast become wireless and access academies are virtually there.

Digital literacy is no longer a luxury but a necessity. It has the potential of significantly altering economic status, social relations and media. Globalisation (once narrowly called McDonaldization) is one example. Custom-made products, consumer created content are other examples. There is a paradigm shift in our lifestyle. Even irrational choices and asymmetry of information have become acceptable and part of new behavioural economics. John Hartley, the author of *The Uses of Digital Literacy*<sup>xiii</sup> distinguishes between the past “read-only” and the present “read-and write” culture of literacy through the expanding digital culture. In order to push the understanding of this phenomenon, he concludes with a call for “cultural science” rooted in rationality, rather than cultural studies, in order to better grasp the networks and modes of communicative action and participatory knowledge production that are generated through media such as YouTube and Myspace.<sup>xiv</sup> Digitalisation as a tool of inclusive growth works in many loops with intensive and extensive dimensions. It has enabled most individuals and institutions including governments and NGOs in managing growth and drawing lessons for future as in the case of group management. Inclusiveness brings equity to prevent vulnerability and convergence to eliminate discrimination.

It can blend local concerns with global consciousness. In India the discussions and policy-orientations regarding inclusive growth brings to the forefront the issue of “accessibility” to resources and returns of growth.<sup>xv</sup> A most visible sign could be Internet access. The need to address the digital divide is seen both as political correctness and economic wisdom. Two main areas where India could get many gains from digital empowerment are rural development and education. What we really mean by rural development? For meaningful rural development, we have to take the best route of e-governance for good rural governance. Most governments have realised this by tests and results: accountability, efficiency, rule of law and transparency in government processes, and empowerment of citizens, particularly the marginalised. In India the National e-Governance Plan approved in May 2006 ultimately bears the essence of the relationship between good governance and development of rural people. Rural India is at present economically backward. How to gear up the growth process in the countryside? Can there be a second green revolution in our country? Can we have more than one revolution – grain revolution, gene revolution, gram (village) revolution? Can all these happen given the technological dualism in the country? Nothing is impossible.

From illiteracy to e-literacy our villagers have shown what they need and what they can. They are willing to take risks and venture upon hitherto untraveled roads. They are learning to be entrepreneurs (e.g. Agriprenuers). They are also asking for freedom to innovate and experiment. Transformation begins with a belief. No doubt it is not technology per se that can transform rural India. An amalgamation of technological approach and human approach is needed for balanced growth [3]. It is here that ICT ought to play as a tool of transformation. Then rural India will reform and perform. The village(r) s can not only have the resilience to tide over temporary difficulties and crises but also dismantle the web of structural rigidities and come out of the vicious circles of poverty, once and for all. This is a sure way for a new socio-economic life that is secure and sustainable.<sup>xvi</sup> Rural friendly ICT such as village-based websites and women-oriented websites are some of the ideas that forward-thinking companies are now creating. Their

businesses and brands have won the heart of the villagers by creating, delivering and sustaining value for them by harnessing the power of the Internet. This is thinking out-of-the box because it is not just thinking of rural market as yet another segment marketing that needs some painting or polishing or adding of some pastels. The new thinking has succeeded in strategizing e-marketing for the rural customers. The Wireless in Local Loop (WLL) technology developed by IIT Chennai has helped in providing Internet connectivity to 250 community Kiosks that offers these services to over 700,00 people in rural India [6]. But this is half the distance covered. Rather it is “ICT vehicle coming to the village” not the “villagers driving the ICT vehicle” to move away from poverty. Poverty is not only material deprivation but also a lack of empowerment. Digital power empowers the people by giving more and more access to livelihood information and communication. Internet nodes, agri-websites, rural kiosks, data banks, online edu-entertainment centres by wired and wireless communications are the modern means of reaching and holding rural people together.<sup>xvii</sup> Coming to the Digital power and possibility in the realm of education, the IT is revolutionising the way in which we live, learn and study, work, play and enjoy. Its highlight lies in the ability to treat information with mathematical precision. It is developing people to people and not just people to commodity relationship. Computers by their very characteristics – word length (bits and bytes), speed, storage, accuracy versatility, automation and diligence – are meant to be effective tools of knowledge transfer.

There seems nothing to match computer’s knowledge base system and intelligent user interface. However, one needs to be cautious and patience in the knowledge journey: it is from knowledge creation/ discovery/mining to knowledge transfer and development. Knowledge development (KD) = techniques from computer science + artificial intelligence; when taken from data bases it becomes knowledge discovery in databases (KDD). KDD itself has several phases: data selection, pre-processing, transformation, extraction, and interpretation and evaluation. The transformation and transfer becomes fruitful only when data mining and analytical process sing reaches “Enterprise Resource Planning” (ERP). ERP means techniques and concepts for integrated management of businesses as a whole from the point of view of the effective use of management resources. Old system of education is one of pouring of facts to students – faulty and boring; quiet listeners and not active participants in learning. Today ICT has made an information age with the use computers in education, training, and skill formation. A related area is that of Distance Learning (virtual schools) – extending educational processes beyond the walls of the school with the aid of computers, modems, fax machines, satellite video transmission, Internet and other communication technologies. From 1990s onwards on-line degree programmes have appeared on a massive scale, online schools are said to be good for lifelong learning.<sup>xviii</sup>

### From Make in India to Digital India

“Make in India” campaign launched on September 25, 2014 got boosted with later announcements like, ‘Skill India’ mission, and ‘Digital India’ programme. After a major change from agrarian economy to tertiary economy it is expected that now India is in the way to becoming a major manufacturing hub. Being Smart; Growing Smart – we have learnt the hard way so far, now it’s time to be smart – smart cities, smart

villages will come up with affordable infrastructure – making manufacturing productive and improving people’s standard of living.<sup>xi</sup> Digital India is an umbrella programme that covers multiple Government Ministries and Departments. It weaves together a large number of ideas and thoughts into a single, comprehensive vision so that each of them can be implemented as part of a larger goal. Each individual element stands on its own, but is also part of the larger picture. Digital India is to be implemented by the entire Government with overall coordination being done by the Department of Electronics and Information Technology (DeitY). Digital India aims to provide the much needed thrust to the nine pillars of growth areas, namely Broadband Highways, Universal Access to Mobile Connectivity, Public Internet Access Programme, e-Governance: Reforming Government through Technology, e-Kranti - Electronic Delivery of Services, Information for All, Electronics Manufacturing, IT for Jobs and Early Harvest Programmes. Each of these areas is a complex programme in itself and cuts across multiple Ministries and Departments.<sup>xx</sup>

### The Digital India programme is centred on three key vision areas

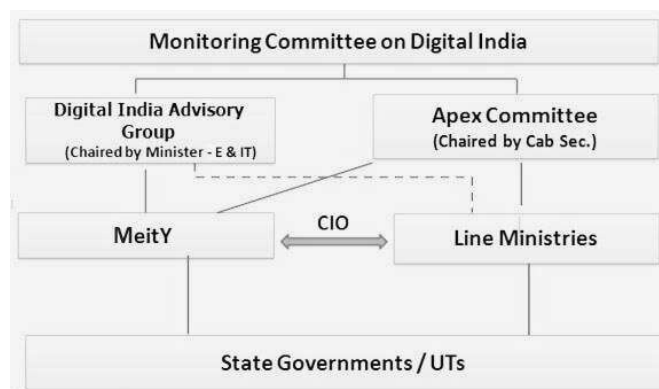
- Digital Infrastructure as a Core Utility to Every Citizen
- Governance and Services on Demand
- Digital Empowerment of Citizens

### Approach and Methodology for Digital India Programme are

- Ministries / Departments / States would fully leverage the Common and Support ICT Infrastructure established by Government of India. DeitY would also evolve/ lay down standards and policy guidelines, provide technical and handholding support, undertake capacity building, R&D, etc.
- The existing/ ongoing e-Governance initiatives would be suitably revamped to align them with the principles of Digital India. Scope enhancement, Process Reengineering, use of integrated & interoperable systems and deployment of emerging technologies like cloud & mobile would be undertaken to enhance the delivery of Government services to citizens.
- States would be given flexibility to identify for inclusion additional state-specific projects, which are relevant for their socio-economic needs.
- e-Governance would be promoted through a centralised initiative to the extent necessary, to ensure citizen centric service orientation, interoperability of various e-Governance applications and optimal utilisation of ICT infrastructure/ resources, while adopting a decentralised implementation model.
- Successes would be identified and their replication promoted proactively with the required productisation and customisation wherever needed.
- Public Private Partnerships would be preferred wherever feasible to implement e-Governance projects with adequate management and strategic control.
- Adoption of Unique ID would be promoted to facilitate identification, authentication and delivery of benefits.
- Restructuring of NIC would be undertaken to strengthen the IT support to all government departments at Centre and State levels.

- The positions of Chief Information Officers (CIO) would be created in at least 10 key Ministries so that various e-Governance projects could be designed, developed and implemented faster. CIO positions will be at Additional Secretary/Joint Secretary level with over-riding powers on IT in the respective Ministry.

For effective management of the Digital India programme, the programme management structure would consist of a Monitoring Committee on Digital India headed by the Prime Minister, a Digital India Advisory Group chaired by the Minister of Communications and IT and an Apex Committee chaired by the Cabinet Secretary. The structure has the needed secretarial/ monitoring/ technical support and appropriate decentralisation of power and responsibility to ensure effective execution of the various projects/ components by the implementing departments/ teams. The institutional mechanism for programme management is seen in exhibit below.



**Exhibit 1. Programme Management Structure for Digital India Programme**

The central ministries/departments and state governments concerned would have the overall responsibility for implementation of various Mission Mode and other projects under the Digital India Programme. Digital India Programme is a vision of transforming India into a “digitally empowered knowledge economy”. It can be thought of as renovative makeover of e-governance project in its extended form which is in place since mid-1990 and is a precursor to digital India initiative. According to UN E-Government knowledge database, “E-government can be defined as the use of ICTs to more effectively and efficiently deliver government services to citizens and businesses.

It is the application of ICT in government operations, achieving public ends by digital means”. Under India’s e-governance programme of mid-1990, several states/UTs projects were implemented which although being citizen-centric, were unable to produce desired impact. However, continuing in this direction, GOI launched National E-governance plan (NeGP) in 2006 under which as many as 31 central, State and Integrated level Mission Mode Projects (MMP) were initiated which collectively covered a wide range of domain; including the projects like e-office, Immigration, Visa and Foreigner’s Registration & Tracking (IVFRT), UID, Pensions, Banking and posts at central level; e-Governance in Municipalities, Crime and Criminal Tracking Network & Systems, PDS, Health, e-panchayat, e-District and National Land Records Modernisation Programme (NLRMP) at state level; e-procurement, e-Courts, e-Biz and Common Services

Centres at integrated level. The fact that, despite standalone success of many e-governance projects across country, the consolidated impact of these projects remains to be less than the desired, pointed out the need to overhaul the present infrastructure of e-governance plan and look for ways to overcome other challenges in path of making India a digitally empowered economy. Therefore, Digital India scheme is envisaged to make the government services available to citizens electronically through robust online infrastructure and better Internet connectivity.<sup>xxi</sup> Government of India has approved the e-Kranti programme recently with the vision of “Transforming e-Governance for Transforming Governance”. All new and on-going e-Governance projects as well as the existing projects, which are being revamped, should now follow the key principles of e-Kranti namely ‘Transformation and not Translation’, ‘Integrated Services and not Individual Services’, ‘Government Process Reengineering (GPR) to be mandatory in every MMP’, ‘ICT Infrastructure on Demand’, ‘Cloud by Default’, ‘Mobile First’, ‘Fast Tracking Approvals’, ‘Mandating Standards and Protocols’, ‘Language Localization’, ‘National GIS (Geo-Spatial Information System)’, ‘Security and Electronic Data Preservation’. The portfolio of Mission Mode Projects has increased from 31 to 44 MMPs. Many new social sector projects namely Women and Child Development, Social Benefits, Financial Inclusion, Urban Governance, e-Bhasha etc. have been added as new MMPs under e-Kranti.



### Challenges and Suggestions

Contemporary media and communication policy framings fail to recognise power differentials in the “right to communicate” between different classes of citizens in the information society context. The communicative environment of the information society enlists more and more users through a win-win mode; it valorises user participation, where the user is the product. As connectivity and access become the new normal, gender concerns in media policy are reduced to the imperative for women’s inclusion, and hence, the need to bridge the gender digital divide when gender relations are reproduced in the current social order. Scaffolded by the Internet, neoliberalism has risen as the dominant political dogma in a globalised world. It has fuelled a hegemonic information society discourse that uncritically celebrates the new opportunities for individual autonomy, flexibility, and innovation in the immaterial, digital economy. Further, we see how the authoritarian state’s digital agenda reveals a patriarchal subtext in the strategic assertions about, and erasures of, women. The Indian case, we submit, is reflective of the contemporary digital moment, not only marked by the evisceration of the transformative content of gender politics, but also constitutive of it. Under these circumstances, we are faced with the extensive task of producing alternative feminist imaginaries of social, political, and economic discourse in the information society. Toward this, the re-politicisation of gender in media and communication policy frameworks at global and national levels is a critical first step. Michael Gale of the Pulse Point group says, ‘One of the most basic impediments to moving forward on the road to digital transformation is whether or not enough people within the organization are aware of the

challenges. Because if they're not aware of the challenges the probable truth becomes they're either going to trip up, fall over and be massively disappointed when it comes to doing it. Basic awareness about those challenges is probably the key indication of how well the process will be successful.’<sup>xxii</sup> Some individuals and institutions may be slow at digitalisation. Technology by itself also poses certain challenges: (i) technophobia – the fear of technology; (ii) stop to old best practices like serious reading; (iii) overdoing new habits like “cut and paste”; (iv) less indulgence in methodology (say, not learning how to learn!) ; and (v) systemic failures due to outages, data theft etc.

### Conclusion

Accessibility to digital technology and accomplishment/impact of digital empowerment offers the researcher a broad spectrum of methodological investigation, taking into account the critical conceptual and practical aspects therein. There is no easy route to digital empowerment. Further the methodological approach keeps evolving and has to adapt to the changing functional, technological and human perspectives of growth in general and inclusive growth in particular. Therefore it is wise to blend technological and human approaches that strengthen the enabling and evaluatory mechanisms of digital empowerment.

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