PMGDISHA: INDIA'S DIGITAL REVOLUTION, SO CLOSE YET SO FAR AWAY?

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Introduction

"The sun rises in the West. Play it, Mr. Dvorak. There's a New World coming again, looming on the desktop. Oh, say, can you see it?"- Rosenblatt

India has been riding the waves of Digital Revolution at the forefront, with a projection of 829 million digital users in 2021.[1] Information and Communications Technology (ICT) is understood to provide great personal and community development benefits to its users. The Indian Government had made ICT a core essential to transform India into a digitally-empowered society and knowledge economy.

However, the numbers don't reflect the pervasiveness of ICT, because of the large rural population which remains digitally disconnected. This disconnect could be due to many factors such as a lack of digital literacy, network and infrastructure. The desire in policy circles to bridge this urban-rural divide is reflected in the Government's initiative of Pradhan Mantri Gramin Digital Saksharta Abhiyan (PMGDisha), touted as the world's largest digital literacy program.[2]

[1](Cisco)

[2](Cabinet approves 'Pradhan Mantri Gramin Digital Saksharta Abhiyan' for covering 6 crore rural households)

The debate around this is that the digital divide between communities invokes arguments similar to those invoked in historical debates surrounding the construction of railways, optimists arguing that the railways was fodder to development, and others citing research that showed the railways only augmented development where there already was a high potential for development (such as areas which were capable of producing commodities such as tea, coal and petroleum).

This paper is an attempt to analyse issues of rural demographics, particularly remote areas through PMGDisha. It is divided in two sections. The first section provides an introduction to the scheme and the second section analyses and raises questions such as who is implementing the scheme, what is digital literacy, what is digital infrastructure, will India become digital by achieving this target and finally will going digital automatically result in better governance?

In this article, the author has included primary data obtained through interviewing identified stakeholders, through a set of tailored questionnaires orally delivered to them from ground, kiosk operators,[3] beneficiaries (Beneficiaries), District Managers(Interviews)to journalists (Srivas), (Chaudhary), academician and the Assam head of the implementing agency (Doley). The kiosk operators were selected from the Common Service Centre telecentres set up in Goalpara[4] and Bongaigaon[5] based on the area's geographical terrain and weather, such as is the area flood prone? How remote is it? BTAD[6] was selected as a third sample to consider an autonomous council area in addition to the above factors of Goalpara and Bongaigaon to analyze the implementation of the scheme. The author tried to establish contact with the CSC centres prior to visits on the phone numbers given on the

[3]24 Centres in Goalpara, Bongaigaon and Kokrajhar.

[4]11 CSC centres located in Sri Suryagiri, Matia, Bodahapur, Ambari, Bogan, Faringapara : Taltola, Lakhipur Pharigapara, Bashmura: Katarihara : Lakhipur, Jaleshwar Dodan, Monkola Chaildhora.

[5]7 CSC centres located in Khagarpur, Pub majeralga : Boitamari District, Kabaitary, Jogihopa, Piradhara : Srijangram, Dumuria PT II, Chakapara.

[6]7 CSC centres located in Bishmuri, Kokrajhar, Srirampur : Kokrajahar, Jaraguri, Gossaigaon Tehsil, Padmabil : Gossaigaon, Padmabil : Gossaigaon, Serfanguri: Dotoma, Chithila : Dotoma

CSC portal and general search engines. The author faced connection errors, owing to reasons such as CSCs being voluntary partnerships, defunct phone numbers and phasing out of the scheme in selected centres. Hence to locate and visit the centres, help was sought from the District Managers of Goalpara, BTAD and Bongaigaon.

As data has been collected in individual capacity by the author, it may suffer from inaccuracies and biases such as the beneficiaries not having taken the exam at the time of visit, sparse face to face interviews (7), etc. The data was collected with the intent of being corroborated through secondary sources, i.e. other telecenter findings, within the country and globally, with a special focus on remote areas.The author's observations and the collected data are woven through the paper by articulating various arguments on literacy and e-governance.

The need for the scheme: Digital Divide

The digital divide can be understood as the separation between those who have access to digital ICT and those who do not(Riggins).This divide between the haves and have-nots has been documented in diverse disciplines from geography(E. Malecki), to Media, Communication and telecommunication(Helsper, A corresponding fields model for the links between social and digital exclusion), public policy (Prieger, The broadband digital divide and the economic benefits of mobile broadband for rural areas.), sociology (Warren), (Howard). Innovations through ICT have not been distributed equitably when at the same time ICT has progressed to almost universal access to global community of interaction, commerce, learning, associated improved social welfare, and leapfrogging economic development. Broadly, the term Digital Divide is defined in socio-economic terms as a difference in access and, inequality among those who have formal access (Philip *et al* 387.). It is "used to cover a broad range of social differences in access to and use of digital equipment and services, most notably personal computers, and the ability to access the internet in terms of both physical connection and facility of use." (Sparks)

Digital divide in the rural context alludes to the lack of access due to geography, where a sector of (rural) population suffers from indefinite lags

in ICT due to network and infrastructural incapability[7] which creates rural digital exclusion (Philip *et al.*).Hence, the socio economic interpretation of digital divide incorporates greater complexity to the rural demography. However,there has been very little research on this topic with regard to the Indian rural context. This creates an additional complexity, for instance the evolution of accessing the internet exclusively from public spaces of offices, cafes or libraries to mobile phones and multiple forms of access of tablets, computers, etc. cannot be exclusively seen in an urban setting. The earlier approach to the digital divide in the context of have and have not's would miss the intricacies and implications of digital inequalities, a part of the continuum of existing differences, a set of digital divides or inequalities in a spectrum (White).

In India, as per the 71st NSSO Survey on Education 2014,[8] only 6% of rural households have a computer. This highlights that more than 15 crore rural households[9] do not have computers and a significant number of these households are likely to be digitally illiterate.[10] PMGDisha–the government scheme reflects the desire in policy circles to take proactive measures to bridge the divide.

The scheme: PMGDisha

The Digital India (DI) programme is an umbrella plan of the Government of India to synchronize all digital initiatives (Ghosh)with a vision to transform India into a digitally empowered society and knowledge economy.[11] It has 235 "DI initiatives" under the program categorized into three sub-heads, of infrastructure,[12] services (Ministry of Electronics & Information Technology) and empowerment (Ministry of Electronics & Information Technology). PMGDisha falls under the empowerment subhead,

[7](Howard *et al.*; OECD)

[8]GOI (Office)

[9]@94% of 16.85 crore households)(Office)

[10](Cabinet approves 'Pradhan Mantri Gramin Digital Saksharta Abhiyan' for covering 6 crore rural households)

[11](India, http://digitalindia.gov.in/content/vision-and-vision-areas)

[12](India, http://digitalindia.gov.in/infrastructure)(Ministry of Electronics & Information Technology)

one of the integral components of the Prime Minister's vision of Digital India[13]. Its aim is to make one person in every household digitally literate, across States/UTs reaching the target of 6 crore people or "beneficiaries" of the scheme[14] providing them access to information, knowledge and skills to operate computers/digital access devices.[15] It gives preference to marginalised sections of society like Scheduled Castes (SC)/Scheduled Tribes (ST), Minorities, people Below Poverty Line (BPL), women and differently-abled persons and minorities.[16] The course is for a duration of 20 hours which can be adjusted between 10-30 days.[17]

The 235 DI initiatives are to be financed by the Government on a tentative expenditure of ₹1.13 trillion spanning an estimated 3-5 years. According to newspaper reports, at its inception, they include massive infrastructural plans like Bharat Net to Bharat Interface for Money (BHIM) app. It's a high priority agenda of the government entrusted to be on the right path, for its expenditure has been increased from ₹ 1,425.63 crore in 2017-18 to ₹ 3,073 crore for 2018-19. A whopping outlay of ₹2,351.38 crore has been announced for PMGDishain 2017, granting ₹400 crore for 2018-2019.[18]

These funds come directly through the Ministry of Electronics and Information Technology (MeitY) in the accounts of service providers of government schemes such as PMGDisha. This also removes the need for middlemen in monetary exchanges and supplementary grants with state-specific funds are not allocated.[19] The implementing agencies for the scheme are the Common Service Centres-Special Purpose Vehicles (CSC-SPV, CSC)

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[13](India, https://www.pmgdisha.in/about-pmgdisha/)

[14]25 lakh candidates in 2016-2017, 275 lakh candidates are going to trained in year 2017-2018 and 300 lakh candidates are going to be trained in the year 2018-2019; (India, https://www.pmgdisha.in/about-pmgdisha/) Warren (2007, p375)

[15]Ibid

[16]Digital literacy to 40% of rural India households by 31st March, 2019. *Overview Of PMGDISHA - Pradhan Mantri Gramin Digital Saksharta Abhiyan* (2018) (India, https://www.pmgdisha.in/about-pmgdisha/)

[17](India, https://www.pmgdisha.in/about-pmgdisha/)

[18](India, https://www.pmgdisha.in/about-pmgdisha/)

[19](Piyush)

with the owner of such CSC centres training the students. Other affiliating entities like NGOs/ Institutions/Corporates[20] can also participate in PMGDisha, for instance at the time of writing this paper the Assam Electronics Development Corporation Ltd. (AMTRON), a Govt. of Assam undertaking had been named an additional training partner for the implementation of the scheme.[21]

The scheme is monitored in a tri-partite system, with District level committee[22] working in the ground, state government committee[23] overlooking it, and Ministry of Electronics and Information Technology at the helm providing policy support and progress of the scheme.[24] This raises the question of how the scheme is practically implemented?

Implementation: Links and Assessment

Kiosks

Where the extent and problems of digital divide are varied, public policy worldwide has been to encourage pervasive penetration of local ICTs. This is where internet kiosks step in as one of the most popular manifestations to provide for digital needs of the population.

Kiosks or tele-centers can be thought of as internet cafes for rural villages, with one or more connected PCs available for shared use by village residents(Sethi *et al.*). Their focus is on providing a broad range of services

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[20] *Training Partners - Pradhan Mantri Gramin Digital Saksharta Abhiyan* (2018) Pmgdisha. in https://www.pmgdisha.in/training-partners/

[21] *Mandate Of The Department* (2018) Amtron.in <http:// amtron.in/node.php?lnk=gvRns>.

[22] Under the Chairmanship of District Magistrate/Collector with concerned Department; *Implementation Process Pradhan Mantri Gramin Digital Saksharta Abhiyan* (2018), (India, http://digitalindia.gov.in/content/vision-and-vision-areas)

[23] Apex Committee headed by the Principal Secretary (IT) with representative of Department of Education, Panchayati Raj , Social Welfare and Women & Child Development; Implementation Process Pradhan Mantri Gramin Digital Saksharta Abhiyan (2018), (India, https://www.pmgdisha.in/about-pmgdisha/)

[24] Along with Periodic concurrent evaluation of the Scheme implementation would be done through a third party by the Implementing Agency; Implementation Process Pradhan Mantri Gramin Digital Saksharta Abhiyan (2018) Pmgdisha.in <https://www.pmgdisha.in/implementation-process/>

and applications tailored by rural villages by providing public access to the internet such as e-government services which otherwise the rural population would not be able to access (Doley), and in this respect they differ from the generalized meaning of internet cafes where the main service is purely of internet access and standard computer applications (Sethi *et al.*). Studies conducted in the extent of digital divide apply various questions such as providing access and training for basic computer skills, to internet usage among elderly, to the kiosks themselves as a functioning unit ranging from the for-profit nature of such establishments and their sustainability[25] India wide studies however focus on private franchise kiosks[26], to now the more popular Common Service Centres-Special Purpose Vehicles (CSC-SPV or CSCs)[27] under the Ministry of Information and Technology.

The Internet Kiosks: CSC-SPV

CSC-SPV are kiosks who undertake government services[28] as public-private partnership in a form of franchise model[29] with the kiosk operator or a Village Level Entrepreneur (VLE). CSCswork completely on an entrepreneurship model with no viability gap funding for hardware and infrastructure support from the Government of India.[30] It is expected that CSC services would not be the VLE's primary source of income rather an addition to the services they are already providing. The motive behind it is to "encourage their ability to promote and sustain their centres in the long run, rather than depend on governmental subsidized incentives" (Doley). In

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[25](Philip *et al.*; Nemer; Avgerou and Madon; van Dijk; Keniston and Kumar; Bogner *et al.*).

[26](Michael L. Best), (Subhash C), (Centre)

[27](Dhawan) , (Subhash C)

[28]Business to Citizen (B2C) and Government to Citizen(G2C). Under G2C, online PAN Card, caste certificate, domicile certificate, age certificate for approval and grant.

[29]CSC e-Governance Services India Limited, a Special Purpose Vehicle, has been set up by the Ministry of Electronics & IT under the Companies Act, 1956 to oversee implementation of the CSC scheme. The Information Technology Department, Government of Assam is responsible for implementing the National e-governance plan (NeGP) consisting of Assam State Wide Area Network (Aswan), Common Service Centres (CSCs) and E-district.

[30]Government of Assam, Information Technology Department, R No: 768/97/232. Dispur Tuesday, 4th August, 2009.

this respect, VLEs are provided with handholding support through training on Entrepreneurship Development Programme.[31]

Studies conducted in rural kiosks since their inceptionmention that the operators or VLEs can play a social and economic role in empowering the village, by providing information, tools, goods and services such as education and healthcare needs (Beneficiaries). Studies also suggest that kiosk operators often gain self-confidence and stature in the community when they are associated with computers.[32] VLE satisfaction rakes high due to helping their own community, however to break even, revenue is a struggle,especially in the absence of non-economic benefits (Doley).The sentiment for PMGDisha rakes along these lines, "Doing something for own community so feels nice but what about the money?[33] [*Sic*]"

The concern for kiosk operators and now VLEs has remained unchangedfor villages with smaller economies that are not able to gain enough additional value to support themselves since the inception of this concept.[34] This leads to a general demotivation towards governmental schemes, especially PMGDisha which is a time consuming task.

For instance, in BTAD, Dember Hazarlf [35] a VLE in Bishmuri GP teaches a majority of first time digital users. He persuaded students to enrol by going door to door in the village camps along with the District Manager. After enrolment, he painstakingly teaches his students in multiple languages, the local Boro and other language dialects. However, since the exam can only be given in either English or Assamese, he has to also teach his students

[31]The VLEs are close to 2 Lakh Gram Panchayats on an India level and approximately 2500 across Assam The CSCs are voluntary services undertaken by VLEs and hence the number fluctuate, as of the Minister statement, the number is 3964, however in Assam, the numbers as stated by the State head are close to 2000 as per interview conducted in 2018.

[32]VLE interviews in three district of Kokrajhar, Bongaiagon, Goalpara conducted on 1.03.2017-31.03.2017. This also correlates with large scale field surveys done of kiosks across India. See: (Toyama)

[33]Pradeep Kumar Das. CSC VLE in Sri Suryanagri Gram Panchayat, (19.03.2018.) Goalpara, Interview.

[34](Singh, Icts And Rural Development In India)

[35]Dember Hazarlf. CSC VLE in Bishmuri Gram Panchayat, Kokrajhar (20.03.2018.)Personal Interview and Salman Hussain. CSC VLE in Ambari Gram Panchayat, Goalpara (21.03.2018) Personal Interview

the alphabets. He finds the course length too short to finish in 10 days. "It takes them minimum 3 days to hold a mouse, I have to teach them for 30 days,"he says. Due to daily power outages, sometimes it is cut for days on end, he finds ithard to break even at ₹ 300, with the operational cost of computer maintenance, internet, and power backup, manual hours spent to teach the course.

Dember's story is common to CSCs from the poorest communities where socio-economic development is most desired, are exactly the communities whose economies are too small to sustain connected CSCs[36]. Interestingly, successful CSC Centres falling in a higher economic bracket were able to finish the course in 10 days by hiring staff or conducting large number batches[37]. For governmental schemes with community development value such as PMGDisha, a purely entrepreneurial outlook is a flawed perspective.[38] This approach is not ideal for pre-market communities which have to close or shift their CSCs centres in market or near urban areas.[39] For the PMGDisha scheme to work in rural, remote areas where low social capital development potential is weak and must be addressed to ensure social sustainability[40], an alternate model has to be developed. An incentivized structure is a reasonably alternate where the Government increases the beneficiary commission from ₹ 300 to the CSCs located in problem identified areas. They are incentives that can motivate the kiosk owners in the village commerce eco-system, a sort of band aids and temporary fix, which keeps

[36]The critically average monthly income at CSCs remains low, with both mean and median at approximately ₹2000 per month, and this is below the target break-even income desired by either company (between ₹3000 and ₹5000, depending on terms of the loan, cost of connectivity, and the initial capital expenditure on hardware), this data is consistent with those observed in other studies. See: (Michael L. Best)

[37]VLE interviews in three district of Kokrajhar, Bongaiagon, conducted on 1.03.2017-31.03.2017. This also correlates with large scale field surveys done of kiosks across India. See: (Toyama)

[38]"The E in VLE stands for Entrepreneur". Doley, Gyan. CSC-SPV state head, (2018, March 24.) Phone interview.

[39](Interviews) This also correlates with large scale field surveys done of kiosks across India. See: Rethinking Telecentre Sustainability: How to Implement a Social Enterprise Approach - Lessons from India and Africa - Mayanja Meddie

[40]Ibid.

churning till a sustainable eco system is created where the village economy can provide for such businesses. These cannot be a substitute for the bigger problems, which cannot be addressed at the individual level. These are the problems of sustenance of such ventures, which cannot be addressed without roads or network connectivity, infrastructure is the literal ground on which discussions about "digital" start.

Digital Infrastructure

Digital Infrastructure in speeches and website of Digital India has been described as a "core utility to every citizen" bringing digital empowerment and inclusion. It is one of the three key visions of the Government's Digital India program, the others, as the statement pointsto, are digital empowerment and governance on demand. Simply put, Digital Infrastructure is a collection of both technological and human components such as electricity, internet or network connection, computer hardware, also human resources for schools, healthcare centres, employment, transportation and other basic infrastructure which are the fundamental developmental need for an area. Hence, it is not an isolated infrastructure but a system based on pre-existing requirements such as electricity and network connection.

Electricity as the base infrastructure is still glaringly inadequate in villages.[41] There is little data available on the power supply in Assam[42] with 50% households including rural and urban households[43] not yet electrified. The centres visited in BTAD for instance had the highest power cuts in Assam at 44% .[44] The ambition at the government level is undoubtedly

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[41]Joydeep Baruah Associate Professor, OKD Institute of Social Change And Development, conducted 28/02/2018. (OKD Institute of Social change & Development)

[42]According to Assam Power Distribution Company Limited which is mandated to supply electricity to all consumers in the state of Assam.

[43]Enhanced from 16%, the website offered no time frame for the statement, however the website is daily updated to give power updates in areas. Present Power Scenario (2018) *Apdcl.gov.in <http://www.apdcl.gov.in/irj/go/km/docs/internet/ASSAM/webpage/pages/Present_Power_Scenario.html>es/Present_Power_Scenario.html>*

[44]*Circle Wise Efficiency Parameteres FY 2013-14 (2018)* Apdcl.gov.in <http://www.apdcl.gov.in/irj/go/km/docs/internet/ASSAM/webpage/PDF/Circle_Performance_2013_14.pdf>

encouraging, with a slew of similar plans being proposed by the Central Government, promising roughly 48,000 crore only in the state of Assam, including the electrification of all villages and remote areas.[45]

Most often, electrical and telecommunication advances often ignore the requirements and capacities of people living outside urban settings, i.e. the "periphery[46]." As a result, rural areas are the last ones to receive such technology. This last mile approach is an anti-thesis to successful e-initiatives. The data reflects that despite the roll out of various governmental schemes, the improvement to telecommunication infrastructure has been spatially uneven in rural communities.[47] Here the local communities should be kept at the forefront to avail social opportunities, and infrastructure support should flow from the ground. This is called the "first mile approach.[48]" Failure to do so alienates the communities and curbs their access, resulting in a kind of *digital exclusion* or infrastructural failure.

Mobile phones also provide a unique conundrum to any discussions on digital exclusion. Their penetration has been remarkable, with their wide reaching demographic, studies conducted in the field have shown that it has the highest level of penetration, with uniform adoption of cell phones irrespective of rural-urban demographics.[49] It is not surprising due to the very ease of use and affordable ranges available of mobile phones. However, without network accessibility, such affordable mobile phonesis inefficacious.[50]

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[45]Pradhan Mantri Sahaj Bijli Har Ghar Yojna. (Electricity For All In Assam Now A Reality: Sonowal)

[46]Introduction to the Special Issue: The First Mile of Broadband Connectivity in Communities Rob McMahon 1, Duncan Philpot 2, Susan O'Donnell 3, Brian Beaton 4, Tim Whiteduck 5, Kevin Burton 6, Michael Gurstein 7

[47]Highway construction is the top priority. Asia, Multi-billion, (Multi-Billion Infrastructure Projects To Make Northeast Gateway To South East Asia) VLE interviews in three district of Kokrajhar, Bongaigon, Goalpara revealed this to be a primary marketing strategy conducted on 1.03.2017-31.03.2017.

[48]McMahon, Rob *et al*, The First Mile Of Broadband Connectivity In Communities: Introduction To The Special Issue (2014) Ci-journal.net <http://ci-journal.net/index.php/ciej/article/view/1123/1093>

[49]VLE interviews in three district of Kokrajhar, Bongaigon, Goalpara revealed this to be a primary marketing strategy conducted on 1.03.2017-31.03.2017 and (Chaudhuri)

[50]55,000 villages deprived of network connectivity

Thejourney of mobile penetration though is a powerful example on how inclusive technology can become, however this cannot be taken as digital inclusion for internet and computer too.[51] Placing them in a same digital devices categorylike the NSSO survey did, cited by the government,included computer and mobile phones as digital devices with respect to internet, inflating the official rural figure at 27% of internet rural users when the actual number of computer users are an abysmal 6%. Internet use by computers is different from mobile phones, as computers include a slew of other programs ideal for employment opportunities also, such as Tally, Microsoft Excel and Microsoft Word, it is useful to note however that even without computers, the Internet necessarily requires telecommunication infrastructure.

"If they can't afford, they obviously can't come. Paisa nai hai toh mat aao. (If you don't have money, don't come)" - K. Das Village Level Entrepreneur.

Telecommunication system at present in rural pockets is mostly done by private enterprises and government owned telecommunication service, Bharat Sanchar Nigam Limited (BSNL). BSNL being a government service, earlier offered cheaper alternatives but private enterprises have taken advantage by offering their own "affordable data subscription," it is also preferred less due to being sparsely available and suffering from inadequate signal and servicesloss where it is.[52] The commercial private networks in comparison offer better service delivery and efficiency but also pose two major difficulties.First, the private model focuses on profit rather than community needs, which results in rural areas gaining telecommunication connectivity at a much later stage than urban pockets. Also, the data packages offered at the same rate to rural counterparts makes internet a very expensive undertaking in comparison to urban users.

Secondly, a top-down for profit model depends completely on commercial viability, which when incurring losses could also result in

[51]ASER, an India wide literacy survey organization published its reports which showed that 75% of young people in the agr group of 14-18 had used mobile phones, however the figure fell sharply to 28% for internet and 26% for computers. (ASER)

[52]VLE interviews in three district of Kokrajhar, Bongaigon, Goalpara, conducted on 1.03.2017-31.03.2017.

abandonment of services. Aircel in Assam abandoned services, leaving thousands stranded,[53] with people in urban pockets not able to avail services such as booking of gas connection or bank accounts which were linked with their Aircel numbers.[54] They knew how to book connections but nothing outside the narrow ambit of pressing their fingers to do the same, it leaves them in a lurch. The additional procedures of changing their details in the system of gas agency/number portability, bank account linked number is a minor inconvenience for an educated urban person, solved easily through number portability but for the "digitally illiterate"it is a helpless situation, solving which takes and time away from their income. This is also one of the setbacks of technology and the crux of urban rural divide, are the people who can use cell phones really 'digitally literate'? Cell phones remain a powerful statement on how inclusive technology can become but it also raises the questions of literacy and education which will be next in the paper. This also raises the question of telecommunication dependence on civic infrastructure like roads and electricity, a mammoth resource driven task which is not viable for commercial telecommunication enterprises. For instance, broadband connectivity provided through optical fibre networks cannot be undertaken by private enterprises as secondary investment to their telecommunication infrastructure. This task ought to be taken on by the government. One way to do it is by giving tenders to businesses to phase out the same. The problem of slow rolling out is a major failure at the level of implementation. As far as infrastructure goes, take the example of the Bharat Net project that was launched in 2011, with a two year implementation target, but had only achieved 40% of its target by 2016.[55]

To expect and wait for textbook infrastructure naïve, especially for Pan India schemes. The best bet is hence to focus on social and infrastructural needs being addressed simultaneously. That does not mean glazing over the pre-existing issues.However, for the scheme to hit its overarching target of

[53]Sengupta, Devina and Deepali Gupta, *Aircel Plans To Halt Services In Six Loss-Making Circles* (2018) The Economic Times <https://economictimes.indiatimes.com/news/economy/policy/aircel-plans-to-halt-services-in-six-loss-making-circles/articleshow/61952495.cms>

[54](Hindu, Unable to port out of Aircel, say customers)

[55](KMPG)

19,00,000, where it's sister scheme National Digital Literacy Mission (NDLM) had 1/10th target at 90,000, along with being provided in urban areas, when PMGDisha is exclusively for rural areas. For a scheme aimed at implementation at the last mile of rural remote locations, without addressing social and infrastructural needs, would provide minimum impact as they will fall to the existing fallacies. Here, to fail to address the social and infrastructural needs would not be ignorant, but disregard for the ground reports and a blind chase for targets is definitely counter-productive. A clear picture of the basic needs emerges from the proposal to increase the number of centres for PMGDisha training by the CSC head, where it was proposed to the State Government that computer, network and infrastructural support be provided in the schools where it wasn't available, however the proposal was rejected due to lack of computer teaching faculty in the schools. This again is connected to the larger picture of a severe teacher shortage in Indian education market, estimated to be around 12 lakhs.[56]

It is clear that ICT infrastructural needs consist of technical and human resources, where private enterprises cannot step in the pre-existing lacunae of logistic, infrastructural, pedagogical and geographic problems, especially in rural remote areas. The next part also raises pertinent focus on the beneficiaries that the scheme intends to digitally literate. What is digital literate?

Digital literacy

Digital literacy as a concept was introduced in the 1960s, from visual literacy, computer literacy and technology literacy (David Nicholas, Paul Huntington, Hamid R. Jamali, Ian Rowlands), information literacy (David Nicholas, Paul Huntington, Hamid R. Jamali, Ian Rowlands). To understand digital literacy, firstly literacy must be understood. Literacy is an evolved understanding of the linguistic ability to decode symbols used for purpose of disseminating information and meaning (David Nicholas, Paul Huntington, Hamid R. Jamali, Ian Rowlands). It only becomes complex when it is seen to be more than the ability to read and write. The Oxford English Dictionary for example denotes two explanations to literate, "one

[56](Hindustan Times)

who can read and write" and "a liberally educated or learned person."[57] Applying the former definition to digital literacy and taking a singular skill as a reference point, is the definition of "literate" as per our literacy census maps. Currently India's literacy rate is 74.4%[58] and guaranteeing free and compulsory schooling for children up to age 14 by the fundamental Right To Education has ensured a near universal enrolment of students in elementary schools. Digital Literacy is a logical addition in ushering the growth of India's education promotion path. However, taking such figures at a face value for rolling out other schemes especially ones like PMGDisha that are aimed at rural villages, is a fallacy. It would ignore India-wide reports on literacy which project a far more dim picture, that the foundational reading and mathematics abilities of secondary school students across India. As per some studies, a quarter of all children in Std VIII in rural India were unable to read or solve a Std II level text and sum.[59]

A more appropriate way to describe literacy and digital literacy would be to define it in its pluralities, as those capabilities which enable an individual for living, learning and working in a digital society.[60] Hence, it is integral to see digital literacy in a context, i.e. what the modifier,the digital in digital literacy for every society according to its need, is.[61]

Digital literacy as per the PMGDisha scheme is for students to operate digital devices, email, browse internet for information and undertake digital payments.[62] The scheme especially emphasisesdigital payments for the process

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[57]"art, n.1." *OED Online*. Oxford University Press, March 2018. Web. 5 April 2018.

[58](Census)

[59](ASER)

[60]Developing Digital Literacies (2014) Jisc<https://www.jisc.ac.uk/guides/developing-digital-literacies>

[61]A narrow definition for digital literacy would be devices that are digital, in this context a digital calculator user would be digitally literate by that virtue ! Belshaw, Douglas A. J. (2012). *What is Digital Literacy? A pragmatic investigation.* (Doctor of Education),Durham University, Durham, UK. Retrieved from http://etheses.dur.ac.uk/3446/

[62]"[beneficiary]….. *can operate digital devices* (like Tablets, Smart phones etc), send and receive emails & browse *Internet for information and undertake digital payment* etc". Overview Of PMGDISHA - Pradhan Mantri Gramin Digital Saksharta Abhiyan (2018) Pmgdisha.in <https://www.pmgdisha.in/about-pmgdisha/>

of nation building,[63] evident more by the fact that a student must undertake 5 cashless transactions at the end of course modules to access the exam.[64] Hence, as the more preferred purpose, the previously explained modifier for digitalcan be assumed as digital payments for digital literacy in the scheme.The enthusiasm for digital payments to the beneficiaries amongst rural population is the ease of transaction, and lowering the risk associated with carrying cash.[65] This is especially useful for geographically diverse Assam, where the terrain is such that it can take anywhere from a few hours to a day to access towns and return to the village.

However, would they be digitally literate? As a direct result of PMGDisha, a large demographic of first time digital users in the digital economy would be included in areas which may have low literacy rates. Here, considering whether ICT can be departed as effectively and mindfully to afirst time digital usernot equipped with necessary navigating skills, is the key issue.

With the rise of e-commerce, online shopping is penetrating rural demographics and increasingly coming to daily lives of population. But it is important that e-commerce have proper guidelines and not turn into an unregulated place.[66] First, as digital financial structure is expanding, so should distribution. A greater reliance on cashless transactions could result in the burden of additional transactional cost ranging from 0.1% to 5% to fall disproportionately on the poor relative of income doing online shopping or

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[63]"[Beneficiary]...access Government services, search for information, *undertake digital payment* etc. and hence enable them to use the Information Technology and related applications *especially Digital Payments* to actively participate in the *process of nation building.*" Overview Of PMGDISHA - Pradhan Mantri Gramin Digital Saksharta Abhiyan (2018) Pmgdisha.in <https://www.pmgdisha.in/about-pmgdisha/>

[64]It would also have emphasis on Digital Wallets, Mobile Banking, Unified Payments Interface (UPI), Unstructured Supplementary Service Data (USSD) and Aadhaar Enabled Payment System (AEPS) Overview Of PMGDISHA - Pradhan Mantri Gramin Digital Saksharta Abhiyan (2018) Pmgdisha.in <https://www.pmgdisha.in/about-pmgdisha/>

[65](Beneficiaries)and Studies done on cashless trends and (Meenakshi)

[66](Assocham India), *Rise In Cyber Crime In India*: ASSOCHAM-Pwc Study (2018) Business-standard.com <http://www.business-standard.com/article/news-ani/rise-in-cyber-crime-in-india-assocham-pwc-study117011800838_1.html>

other small e-commerce transactions.[67] Second, a rise in technology lead to greater flow of funds in financial infrastructure ecosystem (David Nicholas, Paul Huntington, Hamid R. Jamali, Ian Rowlands) which has increased on Indian websites by nearly five times in the past four years.[68] However investment in cyber security largely remains under funded resulting in a sharp increase in scams, phishing, defacements, virus code, denial of service attacks and identity theft for its large population.[69]

Finally, due to aforementioned reasons a focus on cashless transactions without awareness could also lead the students worse off than they came in. The problems reiterated above are real concerns that a person making a digital transaction should be made aware of in good faith and not the binary belief that "online is all good"[70]. For example, a person who can do a digital transaction without understandingis far more susceptible to fall prey to online phishing, and scams such as lottery ticket. Therefore, changes to the course structure should incorporate teachings on cyber awareness and the 5 exam outcome questions to reflect that by focussing on identifying spams alongside digital transactions. In this way, the modifier in digital literacy would be partially successful in empowerment of citizens intended in the vision of Digital India. The course structure also opens the Pandora's box of social utility. During the author's field visits, rural beneficiaries in areas where the population was more aware and literate were not enthusiastic about the course, for the course certificate would not grant them access to employment opportunities (as a long term computer course of minimum two year is needed for government jobs.) In contrast, the beneficiaries in rural areas with lower literacy rates showed marked enthusiasm, coming in droves for awareness camps, their incentive being that the course was free of cost and could introduce them to a computer. Moreover, women's participation has

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[67](Chandrasekhar)

[68](Assocham India)

[69](U.S.A spent $658 million in the same year 2012-13 to India's ?42.2 crore)U.S.A spent $658 million in the same year 2012-13 to India's ?42.2 crore; (Assocham India)

[70]A common line of thinking in young demographic, field interviews correlated with studies. Babul Roy. Beneficiary PMGDisha, Jaraguri. Personal Interview (21/03/2018) and (Meenakshi)

been remarkable due to VLEs encouraging women in their areas; they say that it is easier to start women batches as they initiate more women.[71] Moreover, the VLEs start these batches in manner suitable to the school timings for the kids or Asha and angadwadi workers and tie ups with other self-help groups. To include more participation of women in the digital eco-system, women VLEs should be incentivized, by either providing incentives in the way of additional income margin. There is an added advantage of women's visibility in such centres, to encourage more women participation in other CSC initiatives like Tele-Law (legal aid) or Tele- Medicine (medical aid), women are more comfortable sharing legal and health troubles with their same sex particularly when the information is sensitive or personal in nature. Particularly encouraging is the ushering mind-set of VLEs in remote areas, where women must be taught about internet for they can later themselves gain more knowledge and impart the same to their kids and other women. Women were seen showing enthusiasm for the program because they wanted to help their kids in their homework and help in their education. The advertisement of social campaigns by the Government and private organizations in this respect should be given credit for women inclusiveness[72] and sensitization. However it is particularly low when it comes to PMGDisha, barring some cursory mentions in the newspaper at the time of launching the scheme. Local advertisements work wonders for sensitization and encouraging participation, an all the more important and urgent need given the time bound nature of the scheme. The scheme intends maximum benefit to the people in minimum time period of three years. Can this target be achieved in light of such embedded issues encompassing cultural mind set to infrastructural roadblocks?

The Target

PMGDisha is a time bound scheme from February 2017 to March 2018(Ghosh and Up). The target for the scheme in Assam is 19, 29,000 and as of now, officially 1,02,992 beneficiaries have been registered. This is in

[71](Interviews), (Beneficiaries)

[72](Express)

contrast to approximately 8 lakh registrations of Gujarat and Bihar.[73] The low numbers of the scheme are primarily the reflection of the scheme rolling out months later due to the portal being Aadhar based, i.e., VLEs and beneficiaries had to provide their Aadhar identity to register for the portal. The portal was opened to non-Aadhar identification in the second half of 2017 (Doley). This issue however has largely left unreported in state media.[74]

The scheme has to reach approximately 18 lakh beneficiaries in the next two years, no extensions were granted at the time of writing the paper. It's ambition has far outrun its sister scheme, National Digital Literacy Mission , which was launched in 2014 for four years with India wide target of in comparison meagre 52.5 lakh people and 90,000 for Assam. Two impact assessment studies of NDLM showed that lack of Aadhar card was hampering portal submissions in areas where Aadhar was rolled out[75] as well as illiteracy in the form of low level of English or awareness of "digitalization," power supply, rural demographics who were not able to attend the training as they had to forgo their daily wages for the same, hence only those who could afford to take time away could attend.

These are the problems that have been analysed in this paper too. The PMGDisha scheme was launchedwithout redressal of these criticisms and issues. The website proudly proclaims that after the successful implementation of NDLM, PMGDisha with an increased target is rolled out.[76] This scheme was launched without addressing the existing fallacies, creating a rigid burden to achieve, on existing struggling structure in rural areas of the implementing units.[77] A stricto-sensuo target chase would inadvertently harm the remote CSCs due to already present transitional problems, and result in added pressure on the District Managers and VLEs to achieve targets. The disregard for implementation is glaringly obvious to the fact that it took months for the

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[73]Bihar and Gujarat have enrolled 8, 15,139 and 7, 71,608 beneficiaries as per the Government website. It is subject to change at the time subsequently. See: *Students Count List*, (India, https://www.pmgdisha.in/about-pmgdisha/)

[74]R Dutta Chaudhury. Reporter Assam Tribunal. Telephone Interview (28 Mar. 2018)

[75](Foundation)

[76](India, http://digitalindia.gov.in/content/vision-and-vision-areas)

[77](Foundation)and (C. f. Development)

Ministry to accommodate non-Aadhar states like Assam. This lax attitude towards implementation highlights the present inefficiencies in our government system itself. Which brings us to ask the question: Could governance be made better by infusing "digitization"?

E-governance

The concept of e-governance in the developmental discourse is not new to India, it was introduced first in 1977 when government offices started to use computers for word processing jobs(Puneet Kumar, Dharmendra Kumar). The reduced governmental operational cost and ensuring a citizen-centric transparent government has long been the goal of worldwide e-Government implementation(Hashmi). India's e-literacy success lies with the e-government initiative of the State of Kerala called Akshaya (Akshaya Project) lauded for taking IT to the grassroot level and providing e-literacy to its citizens and bridging the digital divide(Radhakumari). Facets for success of e-governance are contrasted to the Assam CSCs.

The first being infrastructural support. One of the main reasons for the successful implementation of Kerala CSC was providing computers and help in securing loans from banks for selected entrepreneurs by standing as their sureties. In contrast, Assam with acute problems of improper infrastructure and unavailability of computers provides no monetary assistance to its VLEs fearing it would hamper the entrepreneurial spirit.[78] The Assam CSCs should find localized solutions to motivate VLEs for PMGDisha, keeping in mind the infrastructure and operational impediments highlighted in the paper.

Secondly, by decentralizing implementation to local bodies and encouraging their active role in the development of district. The local panchayat's involvement has helped in successful monitoring and functioning of the Akshaya centres. For Assam, this is an extremely helpful tool for implementation in its three Autonomous Councils.[79] In Bodoloand Territorial Area Districts (BTAD), the scheme implementation depends on interactions

[78]"CSC is very clear that the E in VLE stands for Entrepreneur". (Doley)

[79]KarbiAnglong Autonomous Council (KAAC), Dima Hasao District Autonomous Council (DHDAC), Bodoland Territorial Autonomous District (BTAD). (Region)

with council heads, district level committee and BTAD officers. Hence alongside official correspondence of letters[80] and notifications of PMGDisha and such schemes, an active involvement through the administrative arm could make the implementation successful. Furthermore, CSCs in Assam face e-district inferior services in granting G2C services.[81] facing time lags from rejection due to a checklist of documents for every service not listed, required for district wise verification. Hence, a robust grievance redressal mechanism for CSCs in coordination with other governmental services should be uploaded on their website for tracking and monitoring. Policy makers and implementers should avoid simplistic interpretation of "e" word in E-Governance whereby old institutions are revamped without a thorough analysis and planning with a thrust on technology. The phasing of e-governance above electronic symbolism also includes transparency and effectiveness, an ongoing exercise open to adaptations according to localised needs by designing new ICT implementations, systems andtraining staff.

Studies show that indicators of governance tend to regard electronic channels as a means of extending good governance. However it is ultimately judged on sociological, not technological terms(Chaudhuri). For instance, digitalizing land records in states has reduced litigations and encouraged Courts and government to expedite this process(Sachin Garg). Land records will also be Aadhar-based to reduce corruption. However the problems of primary data itself came about through IT, despite Aadhar susceptible to fraud(Sachin Garg). The criticisms point that they have failed in achieving their ambitious objectives such as transparency of government information, ending land corruption and discrimination and the slow solving of practical constraints facing it.

All in all, technological solutions fail to provide adequate responses and solutions. For them to work, the attitude towards e-governance should itself be shifted. Rather than the aforementioned statement of "infusing more technology in governance the better it is for India", technology should be

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[80]District Manager. Deshnath SB of Kokrajhar. Personal Interview. 21.Mar. 2018.

[81]Feroz. CSC VLE in Kabaitari Gram Panchayat, Bongaigaon. Personal Interview 21 Mar. 2018.

seen as a tool feasibly deployed where necessary, in solutions that offer systematic and holistic redressal of problems that are result of bad governance. Expecting technologies to solve fundamental problems in governance and infrastructure would just be old sheep in new clothes.

Conclusion

The roads are freshly painted and repairedwhen foreign dignitaries arrive on our land. As the days go by, the paint chips away for it was temporary along with the tents erected to mask the slums(Nelson)(Ahead and Tips)(Assam)(*India's Hyderabad Gets a Makeover for Ivanka Trump*). While it cannot be ignored that India is one of the fastest growing economies, electricity and education in the rural and remote regions of India still falls short of this claim. Chipping them away, the debate around digital divide is crucial to the very concept of development and growth itself. The fear that technological revolution would leave the rural behind is not new, history books are riddled with industrial revolution hampering handicraft workers and making them poorer despite including many demographics in the 18th century. Despite these apprehensions regarding industrialization it did usher in its corresponding advancements like the railways and employment opportunities. It all boils down to a choice a society makes -to either ride the technological boom or refuse to accept it as a part of society. Those opposing it though, the luddites are rarely mentioned, lost in the history textbooks.

This paper has, through the scheme of PMGDisha, tried to map out the pertinences that schemes with technological focus aim to achieve, and it found certain universal strains that are true to any developing country. These include problems of a lax government towards operational proposals, poor infrastructure, sustainability of small time kiosks and the inevitable dependence of any digital schemes on the extent of literacy and the enthusiasm of the population. These are issues not stemming from technological revolution but instead from a history of sustained social frailty of villages being the last mile to policy makers and implementers to urban pockets.In such a scenario,these schemes directed to rural communities as intending empowerment of citizens through e-governance by providing

virtual institutions such as medical centres, government services info-desks, banking sites at a fraction of their cost, is undoubtedly a very progressive idea. Yet, not attainable solely by the virtue of promoting digital payments akin to e-governance as the course offers. Digging deep,technology should be understood as an enabler rather than panacea for governance failings, without addressing the lags in the government system, real progress that reflects on the ground and not just tokenistic on paper one is difficult to attain. This brings us to ponder the sheer ambition of this scheme, of churning out 6 crore digital literates by 2019 as India gears up for the polls. Through the course of writing this, certain contradictions were also found, the most glaringone being the issue of priority of digitization itself. In villages where the community struggles for far more basic issues such as that of food shortage, lack of electricity, poverty, poor or complete access to education, such technological advancements can be perceived to be bourgeois notions of development. However, development rarely happens in a linear picturesque manner, the government cannot and should not be waiting for the ideal infrastructure for roll out. The issues of development must be given simultaneous attention in order to achieve a more holistic form development. The encouraging aspect of rural demographics,understanding the immense benefit with large crowd gatherings for awareness camps and frequent village community discussions around sharing of knowledge, services, money, e-commerce, online shopping. The government e-literacy program is a right step at the right time with mobile phones increasingly becoming commonplace, for inclusiveness and bridging the digital divide in rural areas.

The devil is always in the implementation of such schemes where local needs of villages vary along with the community demographic of income, education, culture. A balance has to be stuck, where the local arm like District Managers in the present scenario, who are aware of the existing system of the bureaucracy, can tailor the scheme by adopting a first mile approach. Hence in severely under-developed areas where electricity and internet are scarce, the Gram Panchayat limit of enrolling students in their specific GPs should be waived, to encourage further participation. The paper began by raising questions of whether India can become truly digital

by achieving this 6 crore target of digital literates. In the end, it is apparent that such a question can only be answered by future impact assessments and debates on whether it was a mere tokenistic exercise or if it has indeed achieved some real progress.

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Annexure - I

Goalpara- 11 CSC-SPV, VLE centres located in Sri Suryagiri, Matia, Bodahapur, Ambari, Bogan, Faringapara : Taltola, LakhipurPharigapara, Bashmura: Katarihara : Lakhipur, JaleshwarDodan, MonkolaChaildhora.

Bongaigaon: 7 CSC-SPV, one VLE Khagarpur,Pubmajeralga : Boitamari District, Kabaitary,Jogihopa, Piradhara : Srijangram, Dumuria PT II,

Chakapara.

BTAD : 7 CSC-SPV VLE centres located in Bishmuri, Kokrajhar, Srirampur : Kokrajahar, Jaraguri, GossaigaonTehsil,Padmabil : Gossaigaon,Padmabil : Gossaigaon, Serfanguri: Dotoma, Chithila : Dotoma.

The key stakeholders:

Overall 6 CSC-SPVs employees interviews taken, from District Manager to the person assigned PMGDisha along with 24 VLE interviews.

The Assam head of CSC-SPV, Gyan Doley was interviewed on 24th March, 2018.

Joydeep Baruah, Prinicipal Coordinator and Lead Author of Assam Development Report, Associate Professor, Okd Institute of Social Change And Development was interviewed on 28th February 2018.

Two journalists, Anuj Srivas of online news publication, the wire reporting on Digital India and PMGDisha (17th March, 2018) and R. Dutta Chaudhary of the Assam Tribune was interviewed on 28th March, 2018.

INTERVIEW QUESTIONNAIRE

Beneficiary CSC-SPV

1. Can you describe your educational background in general?
1.1. Can you talk about your school education, infrastructure?
1.2. How was the overall student drop rate or problems you faced as a student?
1.3. Can you describe the literacy level of your family?
1.3.1.1. If illiterate, do you think they can avail this course?
1.4. Can you describe the digital literacy level of your family?
2. Can you describe what your objectives in joining the course are?
2.1. Can you describe how you first heard about the course and joined it?
2.2. Have you seen any billiboards/tv/watsapp advertisements for the same?
2.3. What identification proof did you provide to register for the course?
3. Were you operating electronic devices i.e. Smart phones, computer before this course?
" If not, then what drives you to learn about such devices?
4. How do you think this course will help you in the future?
4.1. What opportunities, professional or personal will the course provide

you?

4.2. Are you a user of social media? If yes, then what platform do you prefer?

4.3. How did you use the internet before and after the course?

5. Do you face any difficulties in accessing the course?

5.1. Are there any aspects you would like to improve upon?

5.2. Do you think that a complete digital online services dissemination would be easier to switch for you?

VLE Interview

1. Can you describe the history of your CSC center?

2. Can you talk about the overall literates ratio in your area i.e. is the majority of population in your panchayat area is literate or not?

3. Can you discuss the financial aspect of a CSC centre?

3.1. Do you get any initial monetary help for CSC?

3.2. What are the sources of your income as a CSC centre?

3.3. Can you discuss the history of other governmental schemes incorporated at your centre if any?

3.4. What are the monetary support that is provided to you by governmental schemes?

4. What are the common problems you face as a CSC centre VLE?

4.1. Whether registration is a problem due to identity proof documentation?

4.2. Is the infrastructure support i.e. computer maintenance, road support, broadband sufficient for carrying out the scheme at a ground level?

5. What internet service provider do you use?

5.1. If Bsnl, then is the support satisfactory, if not, why?

5.2. If any other internet service provider, why?

District Manager:

1. Can you describe CSC in general?

a. What are the divisions in CSC that you undertake?

2. Can you describe the intentions behind digital literacy?
3. How can they be helpful?
4. Can you describe CSC's role in digital Literacy programme?
5. What would be the role of Common Service Centres (CSCs) in applying the scheme?
6. How are CSC centre granted and approved, i.e is there a mechanism for approval based on the number of centres according to people?
7. How is PMGDISHA faring and what issues if any you are anticipating the scheme?

a. Are they provided any financial support for maintenance or undertaking private partnerships?
b. How can access be better provided to Asha and Angadwadi workers?
c. Can you talk about the financial flow of money to PMGDISHA?
d. Can you talk about Aadhar project not being given to CSCs?

8. How can participation be improved in implementing such schemes?

a. Can you describe the State Wide Area Network/connectivity problems?
b. Would you say these problems are unique to Assam due to its geography, if yes then what would you recommend?

9. What do you think should be online and offline, i.e. forms, gas connection, school admissions?