FIGHTING DIGITAL EXCLUSION
Tracking 15 Years of Footprints of Digital Empowerment
<table>
<thead>
<tr>
<th>Page</th>
<th>Section Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>03</td>
<td>Overview</td>
</tr>
<tr>
<td>39</td>
<td>Projects</td>
</tr>
<tr>
<td>127</td>
<td>Narratives</td>
</tr>
<tr>
<td>04</td>
<td>Walking the Path of Belief, Dream Conviction and Giving</td>
</tr>
<tr>
<td>07</td>
<td>Foreword</td>
</tr>
<tr>
<td>12</td>
<td>DEF Impact</td>
</tr>
<tr>
<td>14</td>
<td>15 Years of DEF’s Fight Against Information Poverty</td>
</tr>
<tr>
<td>30</td>
<td>Achieving Excellence Where Mediocrity Rules</td>
</tr>
<tr>
<td>33</td>
<td>DEF’s Work Meets National and International Mandates</td>
</tr>
<tr>
<td>36</td>
<td>Fifteen Years and Counting</td>
</tr>
<tr>
<td>42</td>
<td>Access and Infrastructure</td>
</tr>
<tr>
<td>62</td>
<td>Governance and Citizen Services</td>
</tr>
<tr>
<td>71</td>
<td>Markets and Social Enterprises</td>
</tr>
<tr>
<td>88</td>
<td>Education and Empowerment</td>
</tr>
<tr>
<td>102</td>
<td>Knowledge Hub and Network</td>
</tr>
<tr>
<td>116</td>
<td>Research and Advocacy</td>
</tr>
<tr>
<td>130</td>
<td>Right to Know</td>
</tr>
<tr>
<td>152</td>
<td>Can you Hear Them? Are You Listening?</td>
</tr>
</tbody>
</table>
Financial Outlook & Balance Sheets 167
Publications 176
Friends of DEF 178
Media Coverage 180

168 Strengths & Outlook
170 Year-Wise Growth
171 Programme Areas: Fund Allocation & Impact
172 Source of Funds
How was India in 2002? Internet was just about seven years old in the country. Mobile was still struggling to achieve a big penetration; there were just 13 million mobile subscriptions in India. Service providers were facing the challenges of trying to minimise the cost of per call rate to geometrically increase the volume of customers. None of the major Acts like the Right to Information (2005), the Right to Education (2009), the National Food Security Act (2013) and Mahatma Gandhi National Rural Employment Guarantee Act (2005) were in place yet. There were also just 82,409 fixed broadband subscriptions in India. Access to digital tools was limited and access to the Internet and the information it held was even low in the one billion-plus country.

I was at the peak of my frustration. I wanted to do something meaningful. I wanted to in some way, however small, contribute to connecting billions of unconnected people in India. The genesis of my frustration had actually started in 2000, when I was compiling and writing a book called “The Internet Economy of India” that I came across the then recently introduced phrase “digital divide”. It remained stuck in my thoughts for days and months to come. I could see its links with almost every social and economic problem of the country. While researching for my book, I read extensively about issues of economic deprivation, low literacy and low health services, and low availability of entitlements or services at the grassroots level in India. The fact that more than 70 per cent of our population was then living in rural parts of the country, only made the problems bigger. Our large population had no means to access information that could empower them to avail rights, entitlements and opportunities. It occurred to me that India or its people are not poor because we have less money or poor resources. We are poor because we have a huge population that does not have access to timely and relevant information about their needs, entitlements, opportunities and rights. It was the information controlled by a few at the top of the pyramid that restricted its percolation down to those at the bottom of the pyramid. Rural India was suffering — and continues to suffer even today — from information poverty.

Yet I could see a bright light at the end of the tunnel. I visualised a scenario where every household in India was connected to the Internet. A scenario where every household in India had access to digital tools; a scenario where at least one person in every household in India was digitally literate; a scenario where all government institutions were online; a scenario where every piece of government information was available online; a scenario where every household in India had access to this information irrespective of one’s geography, caste or gender.

I was convinced that we needed to institutionally empower our masses with digital tools and connectivity. Thus was borne Digital Empowerment Foundation on December 16, 2002. It’s
slogan: *Empowering people @ the edge of information.* The party to the ongoing thoughts and the urge to do something meaningful was none other than Shaifali Chikermane, my wife. And, thus, the bedroom became the office, our living room became a space for meetings, the kitchen had turned into a community kitchen. All through, my urge to do something meaningful was supported by the support I got from my friends, family and colleagues.

Came July 2003, I left my company and handed over my 50 per cent equity to my business partner and started walking the path of belief, dream, conviction and giving. The goals and objectives were very clear: make billions of people digitally literate. Our objective was clear — make Indians digitally literate. The Internet had to be democratic and democratically available to all. We wanted to see one billion Indians as information producers and consumers.

It has been 15 years since we took an oath to work with the poorest of the poor in rural India to fight information poverty. A lot of our beliefs and efforts have turned into national movements. We are glad that what we envisioned a decade and a half ago is replicated in the government’s vision — a vindication of the ethos that our organization holds. “Digital empowerment” is a phrase that is extensively used in the national agenda because the Internet is an empowering tool. It has the power to bring in equality, equity, transparency and accountability. It can create a world where the powerless and the powerful enjoy equal opportunities to be online and equal chances to access information.

It is 2017 now. DEF is 15 years old. Fixed broadband subscriptions have gone up from 82,409 users in 2002 to more than 18,733,454 users today. Mobile subscriptions, too, have gone up from 13 million in 2002 to more than 1 billion today. Internet users have gone up from 1.54 per cent to 29.56 per cent of India’s population. Yet, almost 70 per cent of our population is still unconnected. Digital divide is still a popular phrase and a plaguing challenge.

As an organisation, we are almost 400-strong people; we have marked our presence in more than 345 locations across 100 districts of 22 Indian states and union territories. What keeps going is the growing belief that people have put in us — be it our beneficiaries or those who fund us. However, there is no denying that we are also a victim of growing too fast in the last couple of years but it’s the spirit of the DEF family that supports us. DEF is not driven by the passion of just one or a handful but the passion, values and ethos that each one of us holds.

In the last 15 years, Digital Empowerment Foundation has come a long way but there is still a long way to go because we are yet to achieve what we had set out for. We certainly need blessings from you.

Warmly,

Osama Manzar
Founder & Director, Digital Empowerment Foundation
I would like to guide you through this book as how you should navigate and what you should expect.

This book is conceived and designed to capture 15 years of DEF work. But this work does not merely document the achievements of the organisation but throws light on the work that DEF has been doing towards the nation’s development. It highlights how digital tools and information communication technology makes a remarkable impact in the lives of people, especially at the bottom of the pyramid.

This book is as much for the government as it is for companies and private sector, especially IT and telecom companies, besides NGOs and enterprises. It also hugely relates to policy-makers and looks at technology and digital tools from the perspective of overcoming socio-economic poverty of the country.

The book documents stories and reports that showcase how DEF has fought digital exclusion and what impact technology has had across the board. These reports can be found in the beginning and at the end of the book. This book also presents the work and project-wise impact of DEF’s work, which is divided as per its structured programmes.

Additionally, we have also shared the financial analysis of the organisation in terms of patterns, donors and amount across time, sector and programmes.

Do read, enjoy and send your blessings!
The Digital India initiative launched by the government in 2014, is amongst the most expansive projects in the history of independent India to have garnered widespread support.

Today, a billion Indians have mobile connectivity of which nearly 400 million have access to the internet. But, the next 350 - 400 million users in all likelihood, will be further down the socio-economic ladder with lower spending power and literacy. Primarily, their internet access will be on phone with a penchant for multimedia / video-based content. Arguably, their need for text-based content is likely to be low, and the price point of preferred content will have to be in accordance to cater to this segment. In addition, there’s the added challenge posed by data security – amplified due to low literacy levels. For this section of society, a security breach resulting in loss of money can be disastrous and certain to dissuade others from future adoption. Overbearing as these concerns are, and yet, convenience and ease of use cannot come a cropper.

While all the answers may not be with us right now but will come through as we evolve. Inasmuch, the recent TRAI recommendations on Net neutrality, it must be added, is progressive in its vision of creating a level playing field which fosters innovation – the defining need of the hour.

Given the backdrop, it gives me immense satisfaction that Digital Empowerment Foundation has been working tirelessly since its inception in 2002, to bridge the digital divide with the objective of empowering people - especially the marginalized communities. Through several projects, various ministries of the government, CSR groups, national and international philanthropic organisations have encouraged and supported the good work that is being carried out by DEF.

I, therefore, welcome this publication which seeks to document the efforts and activities of DEF over the past 15 years. I am sure the information in this publication will inspire and encourage other individuals and agencies, including the not-for-profit organisations, to come forward and bridge the digital divide and make the Digital India programme a major success.

Having seen their work closely from the beginning, I am happy to acknowledge that DEF has played a leading and pioneering role in this effort. I wish DEF greater success in the coming years to achieve what it has set out to do.

*R Chandrasekhar*
President
*NASSCOM*
Established in 2002, Digital Empowerment Foundation (DEF) is a not-for-profit social enter-prise that empowers people at the edge of information, including marginalised and under-served communities.

DEF’s overarching cross-cutting goal is to end information poverty by ensuring access to information for all. DEF does this in various ways, including the use of digital tools and infra-structure for connectivity.

One of DEF’s flagship programmes is to establish Community Information Resource Centres (CIRCs), in rural and semi-urban areas, that are owned and managed by the community, and equipped with basic broadband-enabled digital infrastructure. These CIRCs spread digital literacy at little or no cost to empower information-dark communities to use digital tools and avail a whole range of digital government and citizen services to meet their day-to-day requirements.

CIRCs also implement other projects that enable education services, entrepreneurship, development, skilling, tele-medicine, thus empowering below-poverty-line people to know about and avail government welfare schemes, ensure conservation of natural resources, and promote culture and heritage.

Various DEF projects also empower village-level local government bodies, schools, micro-enterprises, civil society organisations, primary health centres, public libraries and other entities to become digitally enabled and capable of availing all the benefits of the Information Age.

In almost all its projects, DEF pays special attention to women’s empowerment. Some projects are devoted entirely towards enabling rural women and women entrepreneurs, especially tribal women and those living in backward districts, become digitally literate and capable of using digital tools and the Internet to improve their lives and their businesses.

Some of the programmes that have critically impacted women are Wireless for Communities, Mobile for Good, Mobile for Social & Behaviour Change, and Digital Literacy. You will learn more about them in this publication.

DEF has so far empowered more than 1 million people to use digital tools for bettering their lives. Through its awards and mentorship programmes, DEF identifies and honours innovations and best practices in the field of ICT for Development (ICTD) across all digital media, and has successfully created a knowledge hub and database of more than 8,000 such innovations across India, South Asia and the Asia Pacific region.

DEF’s research and advocacy projects seek to promote more intensive use of digital tools, access for all to the Internet and the Right to Information.
To adopt a six-fold path for constantly empowering people, especially marginalised and information-dark communities, with the power of information and knowledge using digital tools. Our six-fold path entails the following:

**Access & Infrastructure:** One of the primary goals of DEF that flows from its Mission and Vision statements is providing access for all to the Internet. All projects in this programmatic area have the overarching goal of achieving access — for all — to information and knowledge from the Internet and creating the infrastructure needed to do so.

**Education & Empowerment:** If Access & Infrastructure projects create the hardware, projects in the programmatic area of Education & Empowerment provide the support needed to end information poverty and, thereby, economic poverty. All projects in this particular programmatic area are aligned to the national and global mandate of creating a digitally literate and information-rich knowledge society.

**Governance & Citizen Services:** One of the major goals that flow from DEF’s Vision and Mission statements is to ensure that digital interventions strengthen grassroots democracy, improve governance, bring efficiency in delivery of government services and give voice to the people. All projects in this area are aimed at empowering people with regard to participatory democracy, governance and full and comprehensive realisation of their rights and entitlements.

**Markets & Social Enterprises:** This programmatic area ensures greater integration of grassroots markets and entrepreneurs with the global market through digital interventions. Projects in this area also help non-profits and civil society organisations working for digital inclusion or contributing to preservation of culture, heritage, environment and natural resources.

**Knowledge Hub & Network:** All projects in this area have the overarching goal of creating a common platform for recognizing the best practices, facilitating collaborations and initiating dialogues between experts and individuals in the field of ICT for Development across India and South Asia.

**Research & Advocacy:** We understand that DEF can only achieve its goals with the full support of all stakeholders, including the government, industry, civil society organisations and ordinary citizens. This requires advocacy campaigns, which are supported by thorough research and understanding.
We always trust people till proven otherwise in order to build or start relationships;

We make proactive, sincere and honest efforts our main currency instead of money to bring about deeper change;

We empathise with people and their causes and find solutions accordingly and even if no solutions can be offered create the ground for building relationships to create the basis for finding solutions in the future;

We walk the talk and talk the walk by always doing first and then talking about it;

We always do it ourselves first to provide proof of concept before asking others for funds;

We are always humane and cherish equality as a value by itself when dealing with stakeholders, partners, co-workers and the people we seek to serve;

We create a work environment that empowers people to fearlessly express themselves, innovate and offer creative solutions irrespective of their designations or positions and posts within the organisation;

We create an organisation of people with shared passion and who work for the cause and not for money, power or position and thereby create an organisational culture and work ethos that is enlightened by the humane spirit of volunteerism to help others rather than the animal spirit of so-called corporate professionalism to take from others;

We always advertise how the power of giving and serving takes you to new heights of achievements something that the greed for taking and acquiring can never achieve.

We always try to work for the poorest of the poor and the most marginalised and deprived;

We value people, their needs, causes and relationships over money, revenue or assets;

We always adopt a rights-based approach;

We always ensure transparency, good governance and participative decision making based on a deep commitment to equality and fairness;

We always make sure serving the people is the overarching objective that takes precedence over all others such as garnering more revenues, ensuring faster growth, and so on.
To end information poverty and social backwardness in an effort to create an information-rich knowledge society ushered in by the Internet and the digital revolution.

We have adopted a multi-pronged strategy with a multi-stakeholder approach. Our basic strategic architecture is outlined below.

**Initiate specific projects** to connect specific sectors, communities or groups to the Internet such as Digital Panchayats to connect all panchayats, e-MSME to connect all MSMEs, e-NGO to connect all NGOs, Gyanpedia to connect all schools, Minority Cyber Gram Yojana to connect all minority groups and so on.

**Set up integrated digital resource centres** across India, South Asia and Asia Pacific region in partnership with grassroots organisations to maximise their reach and make them the vehicles of choice for implementation of all kinds of programmes that have the objectives of providing access for all to the Internet, spreading digital literacy, ensuring digital inclusion and implement digital interventions for development.

**Select locations for setting up integrated digital resource centres** with special focus on backward districts, marginalised communities and information-dark regions.

**Become a member of all global and national bodies,** including government panels and agencies, that determine and influence policy making in the field of Internet access and ICT for Development.

**Constantly look out for partnerships and funding opportunities** that enable us to conceptualise and design projects and programmes that address any, some or all of the objectives outlined in our vision and mission statements.

**Constantly leverage our vision, mission, values and proven work on the ground to engage as many stakeholders as possible to push forward the basic agenda of digital inclusion and extensive use of ICT and digital media tools for development and empowerment.**

To empower marginalised communities in information dark regions to access, consume and produce information online using digital interventions and ICT tools.

**Mission**

**Vision**

**Strategies**
15 YEARS OF IMPACT OF DIGITAL EMPOWERMENT FOUNDATION

ACCESS AND INFRASTRUCTURE

30,000,000 +
given access to Internet

300 +
communities provided access to digital tools

5,000,000
have used digital services

GOVERNANCE & ENTITLEMENTS

500 + panchayats
digitally enabled and taken online

5,000,000
people have availed government services and entitlements

5000 +
panchayat members made digitally literate

SSKs
Soochna Seva Kendras

25+ Soochna Seva Kendra set up to enable access to government entitlements in 5 districts

97065 +
registered under various services and schemes

78579 +
have availed benefits

EDUCATION & EMPOWERMENT

Reached out to 300 schools through 183 CIRCs

Content generated by 15,000 students aggregated

50 +
knowledge modules developed

3,000 +
trained as digital entrepreneurs

RURAL WOMEN

33,40,000
trained in use of Internet and digital tools
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<td>The calculation is based on 500 panchayats covering at least 10 members each, with around 4 villages around a panchayat and a thousand people in and around every village.</td>
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<td>SSKs</td>
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<td>The members here are based on system of tracking beneficiaries on a daily basis across all 25 SSKs in 5 districts.</td>
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<td>Through mobile camps, trainings and outreach, including through 180+ CIRCs, over 3,000 women have been trained in skills to run their own enterprises and many more more have been exclusively trained in digital literacy</td>
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| 183 |
| community digital centres across 93 districts in 22 states & UTs |

| 30,000 |
| households in information dark areas provided access to the Internet |

| 5000+ | grassroots NGOs have gone online through web and social media |
| 15000+ | NGOs reached out mobilised for digital literacy and inclusion |
| 400+ | heritage sites across 4 municipalities given digital presence |
| 7 | social enterprises created are self sustainable |

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<th>KNOWLEDGE HUB &amp; DATABASE</th>
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<tr>
<td><strong>DOCUMENTED</strong></td>
</tr>
<tr>
<td>4,202+</td>
</tr>
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<td>2,119+</td>
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<tr>
<td>1,366+</td>
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<td>583+</td>
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<th>RESEARCH &amp; ADVOCACY</th>
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<td><strong>30 million</strong></td>
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<td><strong>30 women</strong></td>
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<th>MARKETS &amp; ENTERPRISE</th>
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<tr>
<td><strong>1350+</strong></td>
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<tr>
<td><strong>7 major weaving clusters</strong></td>
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<td>digitally integrated in Saidanpur, Nuapatna, Barpali, Chanderi, Musiri, Kanchipuram, Kollegal.</td>
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<tr>
<td><strong>1,000+</strong></td>
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| 2 Universal Periodic Review reports on Digital Rights in India submitted to United Nation Human Rights Council |
| **100+** | case studies compiled and documented under Mobile for Social & Behavioral Change |
Fifteen Years of DEF’s Fight Against Information Poverty

Arjun Sen

How can you access the Internet when you don’t earn enough to get two square meals a day? The simple answer is “you can’t”. Digital exclusion and information poverty have always been explained as a direct result of economic poverty. But in this age of post-industrial digital revolution – what is popularly referred to as the “age of information” – there is increasing evidence to conclude that if you can end information poverty by enabling the poorest of the poor to become digitally literate and access the global information super highway, you can ensure that they become empowered enough to lift themselves out of economic poverty almost on their own, except, perhaps, with a little help from the rights and entitlements flowing from government welfare schemes. However, to be able to do that, people need to be informed. To be informed, people need access to information.

“We have been leading a people’s movement to end bonded labour for the last two decades,” says Gayarshi Devi, 45, of Bhanwargarh village in Baran district of Rajasthan. “Although we know that the Indian government passed a law abolishing bonded labour in 1976, there are still many bonded labourers among the Shahariya tribe in this region mainly because none of them know that this system is now illegal and, therefore, none of them go to the district administration to raise a complaint to seek help.” she says. Evidence that information poverty can lead to economic poverty.

Today, thanks to Delhi-based non-profit Digital Empowerment
Foundation (DEF), not only has Gayarshi Devi become digitally literate but she has also been successful in voicing the plight of bonded labourers in her district in the national capital to put pressure on the Indian government to ensure action on the ground at the district administration level. In just three years since 2011, when she first attended a digital literacy training programme run by a Community Information Resource Centre (CIRC) of DEF, Gayarshi Devi and her organisation have managed to free as many as 40 bonded labourers only because of digital literacy and the power of knowledge and information.

Statistics, as long as they are not lies, can easily show that there is a deep link between information poverty and economic poverty. Till the advent of the Internet, this link was just one way – economic poverty leads to information poverty. Today, the link has an extra dimension – information poverty can not only perpetuate economic poverty but, if you can end information poverty, you can most certainly lift people out of economic poverty too. This is something that was impossible in the past but is now very much possible.

This is also a philosophical concept that governments and multilateral agencies such as the United Nations (UN) had realised as early as the beginning of the new millennium but few had begun to take action on the basis of this simple understanding: bridge the digital divide, end information poverty and you can end economic poverty!

But there was someone in India in latched on to this idea and began to take action as early as 2002.

**From near college dropout to global ICT expert and the birth of DEF**

Way back in 1990, a 23-year old unknown Indian, Osama Manzar, came to New Delhi seeking employment. He hailed from Ranchi, the then summer capital of Bihar, one of the poorest states of India. Today, Ranchi is the Capital of Jharkhand, a state bifurcated out of Bihar in 2000, and still one of the poorest states in the country.

Over the next 13 years, Osama went through a journey of discovery till 2002 when he founded the non-profit Digital Empowerment Foundation (DEF).
Today, DEF has emerged as one of the world’s leading civil society organisations fighting information poverty. Since its inception in 2002, DEF has brought more than a million people out of information poverty and as a consequence economic poverty as well. And it has done much more.

Coming from one of the poorest states in India, Osama, since childhood, had always been bothered about poverty. By 2002, he had discovered the deep link between information poverty and economic poverty. He had understood that if you could end information poverty, you could make a very big dent on economic poverty in India.

Osama is almost a college dropout and barely managed to stay out of that elite club of dropouts comprising the biggest stars of the global digital economy such as Founder of Microsoft, Bill Gates, Founder of Apple, Steve Jobs, Founder of Oracle, Larry Ellison, Founder of Dell Computers, Michael Dell, or India’s own home-grown Azim Premji of Wipro. Osama took seven years to complete his basic graduation that students normally finish in three years.

“I had to finally resort to several chits hidden in my pockets to get through,” he says jokingly even as he adds, “I have always been a risk taker although I don’t come from a business background. My father was an engineer with Heavy Engineering Corporation (HEC), Ranchi, and always wanted me to become one engineer too. Though I passed Class X with 71 per cent, I failed to get admission into engineering and finally enrolled for BSc Physics at Aligarh Muslim University. But I did not like what I was studying and almost did nothing for seven years till peer pressure and father’s admonitions forced me to somehow complete the programme. But by then I had found something that I liked — journalism. So I took up a one-year PG Diploma in Journalism at AMU and I worked very hard although I don’t know how much journalism I really learnt.”

Armed with the journalism degree, Osama came to the national capital in 1990 looking for a job as a scribe. For four years, he looked for one but found none – barely surviving living in a servant’s quarter of a government apartment complex just opposite the prestigious Jawaharlal Nehru University (JNU) campus. He did a few freelance stories for which he got anything from Rs 500 to “my highest being Rs 1200,” he says.

Friends, owners of various eating joints, especially of Ganga Dhaba, a very popular eatery among JNU students, even bus conductors of state-owned Delhi Transport Corporation buses gave him credit.

“I also had a girlfriend (Shaifali Chikermane who later became his wife and co-founder of DEF) who was a JNU student studying Russian at that time and would take up a lot of part-time jobs and freelancing work to support me,” says Osama. “During this time, I ran up a debt of over Rs 40,000 that I paid back after I got employed,” he says, recalling that he did not want to take help from his father because it always came with rather disparaging remarks on how “useless and good-for-nothing” he was.

Then in 1994 at last, he got a job at Down to Earth magazine of the Centre for Science and Environment, New Delhi. But even before two months had passed, he got sacked as his sadistic boss “did not like me and made me keep rewriting one story several times when other colleagues understood that I was just a fresher and the boss should not expect me to write a publishable error-free story in my first attempt,” Osama says. Another brief stint with the in-house magazine of SOS Children’s Village followed before he finally got stable employment in Computer World magazine as a reporter in December 1994. Soon after, he got married to his girlfriend who had stood by him during his dark days of unemployment.

Today, Osama and Shaifali are happily married with a son and a daughter, both in their teens. And Shaifali remains a constant support. A digital designer by
profession, she has led DEF’s design team and has helped produce wonderfully-designed websites and publications. She is also the matriarch that keeps the DEF family – now almost 400-strong members (starting from just 8 employees in 2002) – work as one. As almost all employees say in one voice, DEF is a wonderful place to work in. But that's another story!

The stint with Computer World was, however, the turning point in Osama’s life. “Over two-and-a-half-years, I interviewed hundreds of CEOs of top IT companies – Narayana Murthy of Infosys, Shiv Nadar of HCL, Azim Premji of Wipro and so on. That was when my passion for IT was ignited – I worked hard at understanding the Internet that had just come to India in 1995, and the digital economy – I learnt a lot,” he says of the time he flourished under the guidance of a very positive and encouraging editor who almost always entirely rewrote his copies even while appreciating the information that he had collected.

In 1997, Osama’s editor at Computer World told him he should move on to better positions as he had overgrown them. One of India’s largest publishing houses Hindustan Times was at that time looking for someone to head their Internet division. Osama joined as the Head of the division in mid-1997.

“When I joined, I was the only employee in the Internet division. Then I recruited people and developed a new product digitalHT.com on the lines of rediff.com and yahoo.com – that also served as an information and news portal – in less than two-and-a-half-years, ending up with a division of some 40 people. It was then that Chase Capital approached Hindustan Times and made an investment of $9 million for the portal and hired a new CEO from Malaysia. I knew I had to move on once again,” Osama says. That was 1999.

“By this time my entrepreneurial calling was very strong – I had to do something of my own and so, with a partner, launched a media solutions and content management company called 4CPlus to help newspapers and publishing organisations go online. In just one year, our turnover grew from Rs 20 lakh to Rs 4 crore,” Osama says.

For four years, from 1999 to 2003, he ran the company but found that he was not really interested in only finding ways to get more business and make money. “I wanted to do something new and independent,” he says. The truth was that the nation’s poverty bug was constantly nibbling away in his head. He knew he had to do something about that.

While running this company, Osama had also started editing and compiling a book called The Internet Economy of India, which was published in 2001. It was during the process of writing and editing this book that he became acutely aware of the issue of digital divide and how the problems of economic poverty and underdevelopment were in fact a function of the poverty of information.

“Despite working in the IT field since 1995, this was
the first time I realised that poverty of information or lack of access to information is the single most important impediment to development in today’s world,” says Osama.

“Even the poorest of the poor can be empowered to solve much of their problems on their own if they become digitally literate and are able to access information bottom-up,” he says.

After all that wandering and the dreadful days of being an unemployed journalist, now at last he saw his life’s mission: do something to bridge the digital divide, do something to connect the poorest of the poor to the information highway in a bottom-up approach, do something to go deep down to the grassroots and bring home to them the benefits of the digital revolution.

Thus was born the idea of the not-for-profit Digital Empowerment Foundation (DEF) with its tagline *Empowering People @ the Edge of Information*.

His work with Computer World followed by his work with the Hindustan Times and his own company 4CPlus providing ICT solutions to media companies and finally his book on the Indian Internet economy ultimately saw him catapulted into being recognised as an ICTD expert.

In 2003, he was selected as India’s representative on the jury of the World Summit Awards, which seeks to promote the world’s best in digital content and innovative applications within the framework of the United Nations’ World Summit on the Information Society (WSIS).

Today, he is a member of the Grand Jury of these global awards comprising some 35-40 experts nominated from among the 174-odd country representatives that form the basic jury of these awards. The task of these jury representatives is to nominate organisations from their own countries which have done remarkable work in the field of digital intervention for development. The Grand Jury does the final selections. Osama is also a member of several expert panels of the Government of India dealing with ICT for Development, besides being the editor or author of five other books.

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Do something to bridge the digital divide, do something to connect the poorest of the poor to the information highway in a bottom-up approach, do something to go deep down to the grassroots and bring home to them the benefits of the digital revolution.

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From Bedroom to Boondocks

“You may say the idea of establishing DEF birthed in my bedroom as it came out of a conversation with my wife about my thoughts and angst against the digital divide and how creating access to information bottom-up was the need of the hour,” Osama says. Once DEF was registered in December 2002, a new journey started.

In 2003, Osama spent a lot of time travelling first to Dubai and then to Geneva, working for the World Summit Award. It was a great learning experience for him as he came to know about various ICT for Development interventions around the world.

“I also realised how such awards could become capacity-building platforms for creating knowledge networks. I began to work on launching the Manthan Awards to recognise and promote ICTD interventions in India and gradually in South Asia and Asia Pacific,” says Osama.

Meanwhile, DEF had become a functional entity in August 2003; and Osama sold off his stake in 4CPlus to his partner. The money came in a few months later but Osama gave it to his father to build a house – a rather pleasant way of redemption, of saying he had
made it despite all the criticisms he had heard before.

The same year, he edited and published another anthology e-Content - Voices from the Ground through his media and publishing company Inomy Media Pvt Ltd, a company he had launched simultaneously with 4CPlus as an Internet news portal and content house. The book documented case studies of ICTD interventions across India and the world. He also used to produce a newsletter through this company that came to be very widely known and gave him an opportunity to write for various global publications on a freelance basis. The money he earned helped him pay his bills as he did not draw any salary from 4CPlus.com.

In 2004, Osama decided to travel across the country to know first-hand about all ICTD interventions taking place in India. Planet Finance, a venture capital company was interested in such research so they funded his travel expenses. For several months, Osama moved around the country, learning about various projects such as Bhoomi in Karnataka, e-Choupal in Madhya Pradesh, Akshaya in Kerala, e-Seva in Andhra Pradesh, Drishtee in the North East and Haryana and n-Logue in Tamil Nadu, among others.

The travel and the networking also helped him start the nomination process for launching the Manthan Awards, which were eventually launched in 2004. “It was Manthan Awards that really gave DEF the knowledge database for launching our own programmes,” Osama says. Once the Manthan Awards started, Osama and DEF began to know about every single noteworthy ICTD intervention that was taking place in India and South Asia.

Since 2005, DEF has launched several more awards to discover and honour ICT innovations and interventions for development such as the mBillionth Awards, the e-NGO Challenge, the Mobile for Good Awards, the Social Media for Empowerment Awards and a couple of others. Through these awards, DEF has built up a formidable knowledge database of over 7,500 such interventions across India, South Asia, Africa and the Asia Pacific region, besides a network of over 10,000 civil society organisations, companies and individuals working on ICT interventions for development. This is the core strength of DEF.

“Osama and DEF have a lot of knowledge of what works on the ground, what business models work, what outreach models work and so on; and they have a tremendous reach in villages and among NGOs that work for the underprivileged,” says Ashutosh Chadha, Director Corporate Affairs South Asia, Intel’s India arm. Intel, like several others, has been a repeat funder of DEF and together with Intel Foundation have already provided support worth over Rs 81 lakh over the years since 2006. “But we are partners in work and not just people cutting cheques for them,” insists Chadha to emphasise the high regard he has for the organisation.

“Osama and DEF have a wide network both in and outside India,” says Dr Ajay Kumar, former Joint Secretary in the Ministry of Communications and Information Technology, Government of India. “They have a great ability to bring technology to rural people; and a very good understanding of how governments function so they can give very insightful inputs on how governments can work with civil society organisations. Moreover, because of their tremendous outreach capability they can implement projects that others cannot,” he says.

DEF has grown leveraging this outreach and networking capability and their knowledge of what works at the ground level. This has enabled Osama and DEF to utilise revenue surplus from one project to launch another project, and after establishing proof of concept, they are able to get more people to support their new project. If DEF has grown in what may
appear to be an ad hoc and unplanned manner, it is because of the way they have moved from one project to another – the objective always being to connect the unconnected in India.

“We run entirely on a project-funded basis. We have no corpus funds and nobody gives us any money to generally spent over three years or five years. Nor do we raise funds on ideas. We implement a project with our own funds, provide proof of concept and then seek funding to scale up,” says Osama.

That is what sums up Osama’s approach: go deep down to the grassroots using your knowledge database and network of organisations, work out a way to connect the most unconnected through effective partnerships at the outreach level, provide proof of concept then approach funders to scale up.

**Fighting Information Poverty:**
**The 1 BILLION CONNECT Project**

“ONE BILLION CONNECT” screams a hand-written headline in capital letters on a white board just beside the desk of Osama, now 50, at his office in South Delhi.

Beneath the headline are a few lines written in his handwriting that capture a schematic plan on how to connect 1 billion people in India to the World Wide Web. With one billion of India’s 1.25 billion people still offline, DEF mission is to connect the remaining 90 per cent of India’s unconnected population, and connect them fast.

The mission may seem somewhat over-ambitious but once you begin to probe deeper into what DEF has done in a short span of 15 years since its inception in December 2002, you realise that the plan is not unrealistic at all. And once you know how the organisation has grown over the last few years and the way it has been increasingly getting support from governments, foreign and Indian private sector MNCs, philanthropic groups and mega-dollar global foundations, you get the sense that anybody and everybody who matter in ICT4D take Osama and his mission and vision very seriously indeed. Nobody thinks he is just painting a rosy picture of the future. Nobody thinks he’s exaggerating rural India’s problem of digital exclusion.
DEF started operations in August 2003 with its first major project called Gyanpedia.in, supported by the then Ministry of Communications & Information technology, aimed at aggregating content created by students and teachers of government schools and in the process connect these schools to the information highway.

“We started with a zero fund corpus in 2003 but our first major funding of Rs 25 lakhs was from the Ministry of Communications and Information Technology in 2005 for this project and that too the funding did not come at one go,” recalls Osama. DEF’s revenues have grown almost asymptotically since then.

“DEF has grown phenomenally in the last few years,” says Shalini Kala, a member of DEF’s Board of Directors and, an expert in rural development. She was formerly with Canadian organisation International Development Research Centre (IDRC) as head of their ICT-enabled rural development projects.

Another Board Member, Amitabh Singhal, who is also a director on the Board of the US-based Public Interest Registry (PIR) and a well-known ICT consultant agrees, says, “We now have a problem – how do we cope with this growth and how do we manage future growth?”

“I don’t see revenue going down – we will only grow in the future as everybody realises the importance of digital inclusion and digital literacy in solving developmental problems,” says Osama.

Along with revenue, DEF’s footprints, too, have grown. It now has a presence across 22 states and UTs in India - Andhra Pradesh, Assam, Bihar, Chandigarh, Chattisgarh, Delhi, Gujarat, Haryana, Jharkhand, Karnatak, Madhya Pradesh, Maharashtra, Meghalaya, Odisha, Puducherry, Punjab, Rajasthan, Tamil Nadu, Telengana, Uttar Pradesh, Uttarakhand and West Bengal.

It has international operations in Bangladesh, Nepal, Pakistan and Bhutan in South East Asia; in Kenya and Nigeria in Africa; and in Austria in Europe. It has also grown in terms of the number of employees and number of partners.

Moreover, across India, South Asia, Africa and the Asia Pacific region, DEF has created a network covering more than 10,000 organisations working in the ICTD field, which in layman’s terms means those working on digital interventions at the bottom of the pyramid (BOP) to address developmental issues such as livelihoods, health, education, agriculture, water supply, environment, etc.

In the past few years, DEF has set up more than 180 ICT and Internet-enabled physical facilities (CIRCs) — bringing its overall presence to 345 locations — that help spread digital literacy and provide training for vocational skill development among the rural poor in partnership with several government, private sector and non-governmental organisations, the most notable being Intel which had chosen DEF as the key implementation partner for the industry initiative called National Digital Literacy Mission (NDLM), aimed at supporting the Indian government’s vision of creating at least one digitally literate person in each household of the country.

Interestingly, the NDLM has now been adopted by the Indian government as an official mission under the Digital India programme announced by Prime Minister Narendra Modi’s government. The Digital India programme reproduces almost verbatim the kind of language and programmes that DEF has been advocating and implementing over the years.
During this period DEF has also:

1. Enabled 5,000 NGOs (through its eNGO programme), 500 gram panchayats (through its Digital Panchayat programme), 200 MSMEs (through its eMSME programme), and 300 rural government schools (through its Gyanpedia programme) to go online with their own websites.

2. Helped create telemedicine facilities in 5 rural health centres in the tribal district of Baran where DEF supports a local NGO through one of its largest CIRCs.

3. Made seven micro enterprises cluster fully Wi-Fi and e-Commerce enabled, digitally literate and trained in using Computer Aided Design (CAD) through its Chanderiyaan programme and in the process improved their incomes, eliminated exploitation by middlemen and reversed the migration of artisans from their traditional craft.

4. Connected over 5,500 users in remote areas through their Wireless for Communities (W4C) programme using unlicensed free spectrum.

The first encounter with DEF can be mind-boggling irrespective of whether you do it by visiting their website (www.defindia.org) or by reading their myriad brochures or even by listening to a presentation by the organisation’s Founder Osama. You will be even more flummoxed if you try to take all these three routes simultaneously. You will surely feel that DEF seems to have a finger in far too many pies – too many projects, too many partners, too many locations, too many diverse ways of trying to make an impact. The takeaway from a first encounter is very likely to be “Oh, these guys lack focus, they seem to be confused”. But you will be mistaken because there is a method in the madness.

If you take a look at that schematic plan (hand-written notes) on the white board beside Osama’s desk, it goes like this: connect all schools, all Anganwadis or village-level primary education centres, all rural local government bodies (Gram Panchayats as they are called in India), all elected legislators and people’s representatives at different levels of government – local, state and federal, all farmers, all women, all NGOs, all micro, small & medium enterprises (MSMEs), all constituencies, and so on until the last line which is just a wavy horizontal line clearly indicating that the list is hardly exhaustive and is bound to grow (see photograph). And DEF is connecting all these people in ways and through different programmes.

“DEF is quite clear about its work and they are not confused at all,” says Kala who has known Osama and about DEF’s work for nearly 10 years in the course of her work at IDRC and also socially because of what she calls “thematic convergence”.

Osama is single-minded in his passion: bridge the digital divide and make all Indians digitally literate. It is this passion and focus that drives DEF’s work. The diversity of programmes is the result of how DEF has evolved historically and what funding opportunities were available at various times but all programmes have a single objective: bridge the digital divide, make people digitally literate, ensure seamless information flow to the last house, CONNECT ONE BILLION.

DEF’s work & impact on the ground

Till around 2009, DEF — like most NGOs — was driven more by what funding partners were willing to support than launching programmes or projects on its own steam. But sometime in 2009, Osama decided DEF was now financially strong enough to work out and conceive projects on its own, irrespective of whether there were any initial funding partners or not. DEF looked at four major programmatic verticals – Governance & Citizen Services, Education & Empowerment, Access & Infrastructure, and Markets & Social Enterprises. Apart from these four, DEF has had two more programmatic verticals right since its inception: Knowledge Hub & Network and Research & Advocacy.

Osama is single-minded in his passion: bridge the digital divide and make all Indians digitally literate.
Today, all the 50-odd projects that DEF has taken up since 2002 can be accommodated under these seven programmatic verticals. DEF’s flagship project is CIRC. CIRCs are usually set up in rural and semi-urban areas so that they can serve marginalised and information-dark communities. Each CIRC is equipped with basic digital infrastructure such as computers, scanners, printers; and the centre is Internet enabled.

DEF often partners with a local civil society organisation – an NGO or a Community-Based Organisation (CBO) – to set up CIRCs. They are run by people from local communities who are initially provided training by DEF and these locals in turn train others from the community. All CIRCs spread digital literacy and provide all kinds of services such as information on rights and entitlements, government schemes, opportunities for online distance learn, skill building, e-ticketing, other online commercial services, scanning, printouts, online filling up of various application forms, online filing of applications under the Right to Information Act, access to online entertainment and so on.

The objective is to enable poor and marginalised people to improve their lives through online access to information, knowledge and services. The CIRCs also strengthen grassroots democracy by giving people a voice to demand from the government what they need as also better governance through easier and more efficient delivery of government services. Programmes to digitise village-level elected local government bodies known as gram panchayats, help them to set up their own websites and connect to the Internet (the Digital Panchayat programme) or to digitise local NGOs and help them set up their own websites and connect them to the Internet (the e-NGO programme) or to enable local MSMEs to connect to the global information superhighway (the e-MSME programme) are all rolled out by using CIRCs as the basic hub. The CIRCs go about advocating the benefits of digitisation, convince local schools or panchayats or NGOs or MSMEs or other organisations about the need to do so and then help them get connected. The goal is to ultimately connect all rural and semi-urban schools, all primary health centres run by the government, all elected legislators at the central, state or village level by using the outreach capability of the CIRCs.

India is a vast country with the world’s second largest population. Even the government, whether at the central or state level, does not have the outreach capability to end information poverty at the ground level, especially in the most remote and backward regions of the country on its own. DEF focuses exactly on these remote and most backward areas and supplements the government’s efforts. And it does this with a multi-dimensional and multi-stakeholder approach.

For example, many CIRCs also provide tele-medicine facilities by connecting public health centres to the nearest government hospitals. Some have rolled out programmes to preserve natural resources and protect the environment through creation of ground-level digital information for better monitoring and effective action. Some promote culture and heritage by creating websites for vanishing cultural groups or heritage localities as knowledge repositories and to
reach global audiences and tourist markets.

As is to be expected, each of these projects have had an impact on the ground. To come back to Baran, over the last seven years, DEF has set up a cluster of 10 CIRCs in three blocks of Baran which are among the most socio-economically backward in India. All three blocks have a preponderance of the Sahariya tribe in terms of demography and many of them, living in this region, are bonded labourers.

For years, Gayarshi Devi, a poor and semi-literate woman (she has passed Class VII of the 12-year school system in India) coming from the Sahariya tribe, had been part of a social movement started by a local NGO to empower women and help local households suffering the curse of bonded labour. But it had not made much headway when it came to freeing bonded labourers – the district administration would not listen to them that there existed such people, and would take no action.

It was only when DEF’s digital intervention in the area empowered her to become digitally literate that she was able to make her voice and that of the highly backward Shahariya tribe be heard in the national capital of Delhi. That has enabled her and her movement, now growing fast because of digital connectivity, to free in the course of just three years as many as 40 tribals living in bonded labour – something that had never happened before. “Today, thanks to DEF, I can make my voice be heard in every single corridor of power,” she says.

Earlier, the area had no connectivity as mainstream service providers did not find the idea commercially viable. Using back-end connectivity from the district headquarters in Baran, where state-owned telecom utility Bharat Sanchar Nigam Limited (BSNL) provided Internet connectivity, a local NGO with the help of DEF created a wireless mesh network using unlicensed and, therefore, free spectrum to connect all the 10 CIRCs in the area.

Connectivity has completely transformed the area. Today almost all households have at least one digitally literate person. While many bonded labourers have been freed, almost all children from the tribal community are now going to school as there is a digitally-enabled programme to help identify, help and bring back to school dropouts. There were no doctors in the area and most PHCs were non-functional. But now there is a tele-medicine facility in the region that has immensely benefited the locals. Skill building programmes have helped young people to go for higher education, seek job opportunities or set up their own businesses. Although the district remains backward with almost no industries, there is palpable evidence that connectivity and end of information poverty have led to an all-round betterment of people’s lives in a multi-dimensional way.

The story of Chanderi is similar. It is a small town in north-east Madhya Pradesh, a central India state. It has about 6000 households and a total population of about 33,000. The majority of the households are weaver families who produce the world famous Chanderi sarees and other handloom products history of which dates back to the 13th century. Although Chanderi sarees and handloom products command handsome prices at the retail level and are premium products, middlemen used to make most of the money while weavers were left poor and illiterate dependent on a wage system. Average household incomes were about Rs 2500 a month till about 2009. Since then DEF has set up an integrated digital resource centre in the town and today average household incomes have more than tripled, thanks to several benefits of connectivity, digital literacy and empowerment, including introduction of digital designs and most importantly establishment of an e-commerce retail outlet owned by the weavers themselves which has eliminated middlemen.
Digital designs and creation of a digital design library together with use of CAD/CAM software to create new designs has immensely improved productivity as it has brought down the idle time that weavers had to face when they were dependent on a few master designers employed by the wholesalers, the first level of middlemen who paid a small wage to the actual craftsmen and provided them with the raw material only to take away the entire production.

“I have tripled my monthly earnings ever since DEF introduced us to digital literacy and digital designing,” says Mohammed Asim, 26, son of a weaver.

Today, not only have household incomes tripled, all schools in the area have computer labs, every single household has at least one digitally literate person, children of weavers are now going for higher education and starting digital businesses such as cyber cafes to diversify their source of income, thanks to skill building programmes and teaching of English. Earlier, children of weavers were moving away from the trade as there was so little money to be made. Now the elimination of middlemen and ability to sell directly through the online retail store has revived the economy of the weavers and more and more from the younger generation are taking up the craft despite having acquired skills to take up other businesses. Again, there has been an all-round transformation in the handloom cluster.

Chandauli, a small village in Rajasthan is another example. It has about 1200 households. Nearly 90 per cent of the people come from the backward and conservative community of Meo Muslims. In just one year since 2014, DEF’s digital intervention under its Minority Cyber Gram Yojana supported by the Ministry of Minority Affairs, has brought about a socio-economic and cultural change. Almost all households now have at least one digitally literate person. A community that used to stop their women from even going to school has now realised the importance of educating and empowering women. Young people in the area, earlier prone to taking up a life of crime due to unemployment, are now starting digitally-enabled businesses.

Chandauli never before figured on Google Maps, and nobody in India or abroad knew about it. Now it has become world famous and has even been featured on Time magazine’s cover story, thanks to the visit of Facebook Founder Mark Zuckerberg to the village during his visit to India in 2014. The project is no longer funded by the Ministry of Minority Affairs, since its target was met and project closed, but a CIRC is till operation in Chandauli. At any time of the day, a visit to DEF’s CIRC at Chandauli would find both adults and children either getting trained in digital literacy or
using the computers and the Internet connectivity to connect with friends, seeking information or making good use of its newly acquired information wealth to further empower themselves and better their hitherto socio-economically backward lives.

All children of the village have become digitally literate and are the greatest enthusiasts. Vishal Kumar, all of 13 years and a student of Class VIII at a local school, says “I have got my [training] certificate but I still come [to the centre] every day. I used to dream about using computers. Now we can use computers everyday. And yes, I love playing online games,” he says with a bright smile on his face. “But I also use the Internet to know about subjects being taught in school,” he hurriedly adds lest we get a wrong impression.

Chandauli, too, has been connected wirelessly as no mainstream service provider offered their services there. As a result, a government-created facility to enable the local panchayat to become digitised and connect to the Internet had remained non-functional. That is not the case anymore. The local school had a computer lab but it too was non-functional. After the digitally literate children of the school demanded school authorities to make it functional, it is now operational every day. Thus, one can clearly see that a process of all-round transformation has begun well and truly.

Examples can be multiplied but the big point is DEF’s work has proven beyond a doubt that if you can end information poverty you can make a big dent on economic poverty.

Perhaps the most important thing is that access to information, and the Internet, and digital literacy is enabling people to start solving their own problems. As Osama says, “Digital empowerment is making India a very noisy place – now the poorest of the poor, the most deprived, are raising their voices and demanding their rights. They are coming out of economic poverty entirely on their own simply because they can now voice their demands and ask for their rightful place under the sun.” Nothing could be truer than this. You end information poverty and you can almost immediately, magically as if it were, end economic poverty.

For the last 15 years that is what Osama and his organisation DEF have not only been striving to achieve but have also proven on the ground. And the fight against digital exclusion is still on!
‘Digital empowerment’ is making India a very noisy place — now the poorest of the poor, the most deprived, are raising their voices and demanding their rights. They are coming out of economic poverty entirely on their own simply because they can now voice their demands and ask for their rightful place under the sun.
To comment upon the digital empowerment journey of the past dozen years would need more than a few hundred words, it would probably require a hundred pages which would result in a full-fledged book on not only the DEF story but that of the entire history of ICT for Development in India in which DEF has played an ever-expanding role.

A few insights into the Indian state of affairs and DEF’s success can be a briefly captured here.

Today, DEF has the largest digital footprint of TRUSTED delivery of services across the country. It is safe to say that it has truly reached the grassroots to support local computer and information resource centres spread across the most remote and inaccessible areas that could be imagined. Its services range from simple information and education to complex Wi-Fi mesh services. All managed and supported by local youth, especially women and girls. DEF has strived NOT to reach for low-hanging fruits of success but to reach out to the most difficult and inaccessible communities. It also delivers tailor-made services appropriate to the needs of the area that it touches.

So how did DEF begin and where does it stand today?

DEF started with a simple idea of a single person who somewhere within himself was drawn to the potential and challenges of ICT for Development in India. This evolved into a shared vision to learn, contribute and enhance the evolution of ICT for development.
The vision has now become clear. And, joined by like-minded committed members, it has become focused. In 15 years, the dream of making digital India has evolved to become the mandate of DEF’s governance. The hope and aspiration to reach every Indian is a conviction that it can be done and WILL BE DONE.

However, it is important to also reflect upon the current status of the ICT for Development revolution in India and the challenges and opportunities of the moment. It is no doubt important to celebrate the India ICT success story but it is even more important to recognise the shackles that prevent ICT benefits to reach the truly needy masses IN TIME and NOT as a trickle-down effect from “mainstream” society.

The biggest stumbling block to India making the quantum leap to true development is the mediocre mentality of the people and more so of the administrative government regardless of the political will of any political party. Mediocre services as an acceptable standard has been affecting the brick and mortar industry since the birth of this nation and even affects the ICT for Development industry. This universal acceptance of mediocre standards is like a grindstone around the neck of not just the ICT industry but all aspects of this nation as a whole.

Mere electronic delivery of services needs to be changed to achieve EXCELLENCE in delivery of services. Till the striving for excellence becomes part of the psyche of not just the administration but the people from top to bottom, the country will continue to be a mediocre nation, second always to other developing countries. It will mutely watch as other countries in the Asia region overtake India and beat it to the benefits of the ICT global economy. The media hype needs to be matched with excellence in infrastructure. The time lags in implementation cannot be covered up with media hype and need to be addressed with an urgency that cannot be ignored further. The mediocre approach to implementation has resulted in a brick wall that cannot be easily broken. This very mediocre approach has resulted in the corruption of the system and the exploitation and subversion of the ICT for Development focus by national and more so by international corporate industry.

The mediocre mentality and the resultant mediocre delivery of services have resulted in a LACK of TRUST in all services. There is universal acceptance that no train in India will ever reach on time. No bus ever reaches or even starts on time. There is no guarantee that any letter sent through a courier service will ever reach on time, if at all. Surely, there is no trust in the government which cannot even provide basic services consistently to its citizens. The acceptance of these substandard services is the result of the Indian mediocre mentality. The demand for excellence and the need to create TRUST in essential services is the cornerstone for development and the acceleration of developmental goals. The TRUST DEFICIT can only be overcome by a demand for excellence and a drastic change in the mentality of the administration at the central, state, district and panchayat levels. The delivery of substandard services needs to be replaced with standards of international acceptance and acknowledgment. The “CHALTA HAI” attitude needs to be changed to “NAHI CHALEGA” approach to substandard services.

ICT for Development in India will remain a substandard one regardless of the efforts put into it if there is no administrative will to change and establish trust in the services that are required to start the Indian nation train from the development station where it has been huffing and puffing for the past 60-odd years. Today, government and media hype make promises of bullet trains where in reality even a diesel or electric train arriving on time is an illusion. In this perspective, India is not a charging elephant but a floundering turtle lost in the desert sands of illusions prone to hallucinations and suffering from illusions of grandeur.

Where does DEF stand and even survive in this...
scenario? No doubt, like so many diamonds in the dust, DEF has imbibed the qualities that sustain many NGOs in the country who, unacknowledged, continue to strive towards excellence.

There are three factors that are strongly in place in the governance of DEF. Like three points in a development triangle, they are: (i) a clear vision, (ii) a fine-tuned mission, and (iii) a committed practice and action.

The clear vision comes from the governance structure, which is constantly vigilant about the danger of the dilution of DEF’s mandate. The mission is kept on track by review and course correction. A committed practice and action on the ground is ensured by involving local communities in the understanding of the digital opportunities and action to implement by staff that is equally aware of the vision and mission of DEF.

Where does DEF stand today?

The word ‘empowerment’ has the understanding that it defines two sides of ICT for Development to be able to have a relative chance of success.

First, the empowerment of people by government to ensure and provide a net-neutral and people-friendly trusted service without subversion or exploitation by government or by industry. DEF needs to work towards creating this atmosphere and to work closely with government to help in steering through the pitfalls of corporate exploitation and subversion of the digital developmental goals.

Second, for the people it must first and foremost reflect an ethical and effective use of the power of ICT to share and expand its benefits to all members of society. DEF needs to continue to work at the grassroots to expand its services to enable the digital inclusion of all in the coming decades.
DEF’s Work Meets National and International Mandates

Arjun Sen

Ever since its inception, Digital Empowerment Foundation has proved itself to be a thought and action leader in espousing the cause of digital transformation of society and empowerment of communities through the spread of digital literacy and Internet connectivity. Throughout its existence, it has consistently taken the lead in India and South Asia with regard to fulfilling both national and international mandates on the issue of building a digitally-empowered information society.

Working to Achieve National Goals

It is a matter of immense satisfaction for the DEF team that the organisation has been doing for the last 10 years what the Indian government has now realised should be done. The Digital India programme announced by Prime Minister Narendra Modi on August 15, 2014, reflects almost word for word the vision and work of DEF.

The Digital India presentation that is now available in the public domain (http://pib.nic.in/newsite/erelease.aspx?relid=108926) begins by stating that “Digital India is a programme to prepare India for a knowledge future” and that “technology is central to enabling change”.

More than a decade earlier, DEF wrote in its mission statement, “The larger part of DEF’s mission is to contribute its efforts towards making India an information rich country vis-à-vis the world info society” while its very raison d’etre was not only the realisation that technology was central to enabling change but also that in India and other South Asian countries there existed a massive digital divide and, therefore, there was an imperative need for governments, civil society organisations and industry to work towards bridging this divide and ensure that technology does become central to enabling change in an inclusive manner.

The government presentation then goes on to state that the “vision of Digital India is centred on three key areas – digital infrastructure as a utility to every citizen, governance & services on demand, and digital empowerment of citizens”.

Interestingly, DEF has launched projects and activities in all these three areas. The Internet Rights project of DEF specifically demands that digital infrastructure and Internet connectivity be made a fundamental right of all citizens, and it carries out activities to create awareness of the need to provide all citizens digital infrastructure as an essential utility, as essential as say water and electricity.
Similarly, several of its projects, such as CIRC and Wireless for Communities (W4C), are actually creating such digital infrastructure, especially in remote and rural areas of India where no such infrastructure exists. It is also creating digital infrastructure and connecting citizens through several other projects such as Gyanpedia, which connects schools to the Internet and builds websites for them; e-MSME which connects micro, small and medium businesses to the Internet and builds websites for them; eNGO which connects NGOs to the Internet and gives them a web identity; the Chanderiyaan project that has connected a weavers’ cluster to the Internet and created an e-Commerce website for them; and so on.

With regard to governance and services on demand, DEF has launched a project called Soochna Seva that seeks to aggregate all government schemes and entitlements and develop applications that would allow citizens easy access to all government services and benefits. The organisation’s Digital Panchayat programme has already enabled more than 500 gram panchayats across India to build their websites and get connected to the Internet.

Almost all of DEF’s projects have this single overarching objective of spreading digital literacy and empowering citizens in one way or another.

Through its CIRC programme, DEF has been working since 2007-08 towards goals that have later been officially formalised as the National Digital Literacy Mission and, more recently, the National Rural Internet Mission (mentioned in the Digital India programme). Since the announcement of the National Digital Literacy Mission (NDLM) in 2010, DEF in partnership with Intel has been an implementing agency for this mission.

Moreover, the W4C project is aligned to the National Rural Internet Mission as it seeks to provide affordable last-mile wireless broadband connectivity to remote rural areas of India by using low cost Wi-Fi equipment and unlicensed free spectrum in the 2.4 GHz and 5.8 GHz bands.

What is remarkable about DEF’s work is that its projects not only connect citizens by building digital infrastructure where no such infrastructure exists but they also seek to spread digital literacy among children, youth and women to empower communities through local capacity building by implementing educational, skilling, entrepreneurship development, women empowerment, tele-medicine and e-Commerce programmes. A scrutiny of the Digital India programme will show that DEF’s entire work is completely in line with the mandate outlined in the programme’s manifesto.

In short, if the government has today declared Digital India as a national goal and top priority, DEF has already been a 15-year-old veteran in playing a leading role in efforts to implement the various aspects of this programme.

**Working to Achieve International Goals**


After being a participant at the summit, Osama not only shaped the vision and action plan of DEF based on the two World Summit on the Information Society (WSIS) Geneva documents but also launched the Manthan Awards, which were designed along the lines of the WSIS awards, to recognise excellence in creation of digital content and ICT intervention for development. Consequently, ever since its inception, DEF has been consciously and consistently working to fulfill the mandate set out in these two globally accepted documents.

Right from 2003, Osama has been a member of the Grand Jury of the WSIS Awards and all subsequent WSIS events and organisations such as the WSIS Forum and the Management Advisory Group of the Internet Governance Forum (IGF), which was set up following the second World Summit on Information Society held in Tunis in 2005. DEF is also a member of IGF India.
Further, DEF is a member of the Association of Progressive Communications, a global organisation of NGOs working in the field of ICT for development and digital inclusion. Similarly, it is a member of Internet Society (ISOC), another global organisation working in the field of ICTD and digital inclusion. DEF is also a partner in the Global Library initiative of the Bill & Melinda Gates Foundation.

The Manthan Awards, which were initially restricted to nominations from India, has over the years expanded its ambit first to South Asia and now to the entire Asia Pacific region. DEF has also launched the mBillionth Awards and the Social Media for Empowerment Awards, both of which have an international scope and coverage, spanning to South Asia.

The eNGO programme of DEF has also expanded to cover NGOs in South Asia and Africa in line with the global agenda of the Public Internet Registry (PIR).

The book *eContent: Voices from the Ground* published in 2003 and co-authored by Osama, documents ICTD case studies from across the world and is a significant contribution to international knowledge sharing in the field of ICTD and digital inclusion.

As this institutional report documents, in its 15-year-long history, DEF has always worked on furthering ICT interventions for development and the cause of digital inclusion in complete synchronisation with both national and international policy goals.

**DEF: The Road Ahead**

DEF is now committed to achieving the following goals in the near to medium term:

Actively work towards achieving the goal of making at least one person digitally literate in every single household of India

1. Actively work towards achieving the goal of making at least one person digitally literate in every single household of India
2. Make every adult in India digitally literate
3. To serve the grassroots, DEF will seek to establish at least one integrated digital resource centre in (a) all the 272-odd districts in India that have been declared backward, and (b) in all the 2000-odd traditional skill-based clusters of the country
4. Seek to establish Wi-Fi infrastructure at the level of all panchayats.
When we started work at DEF almost 15 years ago, the world was quite different. For one, there were no smartphones. Digital empowerment meant giving access to the World Wide Web through desktops and laptops that were still very expensive. SMS had barely been discovered and its use was limited to the literate and the fortunate few who had feature phones. The language of the Web was English. Of course, what we must not forget is that the Internet economy itself had just gone bust!

It were the days when the dot com sceptics ruled the roost, the Internet economy had caved in. Internet jokes abounded and people sneered at those who still thought there was a future in digital technology. People were searching for business plans. A new search engine called Google was becoming popular. Twitter and Facebook did not exist. The now popular term ‘social media’ was yet to be invented. All that we knew by way of innovation was the missed call and the pre-paid card! The mobile phone was still a status symbol.

There was great disappointment all around and in this gloom, the first Manthan Awards were launched to recognise content that would contribute to the social sector. The pioneers were easy to find, there were very few of them. The risk was large though, of recognising and rewarding efforts that might look good but would disappear without a trace like several of their far better funded dot com ventures. Slightly tougher was the search for people who could understand what technology meant and where it was headed.
What was even more difficult was to come up with a template that would allow a robust and comprehensive jury process to take shape. That would bring together a curious mix of talent from the social space of people who at once understood technology, believed in the digital medium, could envision a connected world, understand the challenges that the changing development paradigm was to tackle and — with all this — be able to sniff promising business ideas.

As if this was not enough, DEF had to define what later came to be known as social entrepreneurship, the adaptation of business principles in a space that would at once be competitive, ethical and profitable. We began battling on all fronts and even as we grappled with various doubts, we quickly realised that the direction we had taken was the right one. Even if the financial models that had defined success on the Internet in the last century were faulty, the technological base was solid.

Chanderiyaan put everything together. It became our brightest success story by bringing together illiterate artisans in a remote location, providing them with design capabilities and giving them an international market. With one intervention, we had addressed issues that were considered insurmountable without first setting up the preconditions of economic growth. Prevalent wisdom recommended sequential interventions. We were told people must first be skilled, they must have access to roads, high-quality electricity, institutional finances and expensive training,

No, we said. Let’s simply give them access to a computer. The rest will fall into place in no time. We now had to simply look in desert towns, across dense forests, atop mountains, in the educational, cultural and healthcare sectors, to discover how people with very few resources would transform their businesses and their livelihoods. Digital empowerment for the marginalised meant immediate access to public services, to remote markets, to world class content, to regulatory agencies and to governance platforms that had stood aloof and unapproachable for centuries.

The next few years are going to be exciting. Fifteen years of working with some extremely insightful people has taught us that we are poised to convert our vision into reality. We at DEF now know it is possible to make each citizen digitally empowered. And that is what the next phase is about. Dot NGO, CIRCs, eNGOs, Soochna Seva, Mobile for Good platforms…… We will now use our expertise in field-level work, grassroots intervention, building efficient networks and leverage solid research-based evidences to influence policy, advocate the right to digital access for every person using tablets, smartphones or any futuristic device that comes about.
I have been involved with DEF and its activities for many years and am very proud to see how the team under Osama Manzar has spread its wings and flown to new heights. The DEF team brings to any endeavour a keen sense of vision and purpose. They engage well with all stakeholders, are able to get things done and can be trusted to meet any challenge. As CEO of Zensar and Chairman of NASSCOM Foundation, I look forward to strengthening our partnership with DEF.

Dr. Ganesh Natarajan
Executive Chairman and Founder of 5F World, Ex-Chairman of NASSCOM Foundation
Our Projects and Programmatic Areas

2002 - 2017

- Access & Infrastructure
- Governance & Citizen Services
- Markets & Social Enterprises
- Education & Empowerment
- Knowledge Hub & Network
- Research & Advocacy

Programs:
- Community Resource Information Centre
- Gyanpedia
- Wireless for Communities
- Digital Panchayat
- eMSME
- eContent: Voices from the Ground
- The Manthan Award
- eNGO
- Neerjaal
- Chanderiyaan
- Green Prakriya
- mBillionth Award
- e-North East Award

Timeline:
- 2002
- 2003
- 2004
- 2005
- 2006
- 2007
- 2008
- 2009
- 2010
ACCESS & INFRASTRUCTURE

2017  Internet in a Box

2016  RAISED

2015

2014  Minority Cyber Gram Yojana

2013

2012

2011  Community Radio

2010  Wireless for Communities

2009

2008

2007  Community Information Resources Centre

2006

2005

2004

2003

2002
Community Information Resource Centre (CIRC)

Serving community information & resource needs since 2007

Lack of access to ICTs is a major developmental challenge as recognised by various national and global mandates such as the Digital India programme or the World Summit on Information Society. Digital inclusion of marginalised communities can eradicate poverty and help achieve Millennium Development Goals (MDGs).

CIRC may be considered as DEF’s flagship project for providing access to the digital world by creating the basic digital infrastructure. Since 2007, DEF has been setting up CIRCs in rural and semi-urban areas as its main vehicle for achieving digital inclusion, spreading digital literacy and rolling out its various ICTD interventions. CIRCs are community-driven and community-run, bottom-up public spaces that seek to bridge the information and access divide and transform under-served communities into information-empowered communities. As of December 2017, DEF has set up as many as 183 CIRCs across 93 districts of 22 states and union territories of India.

A typical CIRC is enabled with computers, cameras, printers, projectors, scanners, internet, Wi-Fi and broadband. They are run by enthusiastic, young and passionate community members who understand the meaning of information and how it can empower communities of all class and cadre through all possible means like digital literacy, ICT skills, employable skills, English language, entertainment, health, agriculture, entrepreneurship, RTI, e-Governance services, digital services and so on.

CIRCs at different locations may undertake different kinds of activities and offer different packages of services but all of them facilitate digital access for all and allow the community to avail their daily needs using digital and communication tools. CIRCs enable DEF to undertake a multi-dimensional approach to the task of digital inclusion. They also provide the basic infrastructure needed to roll out various other DEF projects to address various programmatic verticals.

CIRCs are also self-sustaining revenue earning entities. They earn revenues by offering various kinds of digital services.

www.circindia.org
500+ panchayats given digital presence & their elected members made digitally literate

13 public libraries digitally enabled in Bihar, Telangana and Uttar Pradesh

3,000+ women entrepreneurs empowered with digital access

25,000+ women digitally enabled

100+ NGOs provided with physical digital infrastructure

10 government schools transformed into model digital schools

33,40,000+ made digitally literate

5,00,000+ have availed various digital services

33,40,000+ made digitally literate

10 government schools transformed into model digital schools
CIRC Activities Include

**Connectivity & Access**
providing access to all kinds of information and online services including digital entertainment

**Participation & Governance**
enabling participatory governance and better delivery of government services

**Capacity Building & Skilling**
facilitating education and skilling

**Telemedicine & Health**
ensuring affordable access to telemedicine and health services

**Awareness of Rights & Entitlements**
spreading awareness of rights and entitlements

**Entrepreneurship & Livelihoods**
promoting entrepreneurship development and creation of livelihoods

**e-Commerce & Economic Inclusion**
connecting rural and semi-urban markets to global and national markets through e-Commerce and various other ways to achieve economic inclusion

**Culture & Heritage Preservation**
helping to preserve and protect culture and heritage.

Services Provided by CIRCs

- Basic Computer Course
- Advanced Computer Course
- Basic Smartphone Course
- Tally Course
- Typing Course in Hindi and English
- English Speaking Course
- Social Media Training
- Solar Engineer Training
- Modern Farming Technique Training
- Tailoring Training
- Computer-Aided Design Course
- Wireless Engineer Training
- Wireless Network Management Training
- Hardware and Software Management Training
- Information on Central and State Government Schemes
- Filing and Submission of Application Forms for Schemes
- Applying for Government ID Cards
- Photocopying
- Scanning
- Printing
- Photo Printing
- Lamination
- Photo Editing
- Video Editing
- Camera and Projector Renting
- Bill Payments & Mobile Recharges
- e-Ticketing
- Internet Surfing
- Multimedia Downloads
- Banking Services
- Social Media Access
- Online Shopping
- Entertainment Services
- Research and Data Collection
- Awareness Campaigns and Programmes
- Wi-Fi Services
- Website Creation
e-Commerce Portal Creation
- Social Media Platform Creation
- Digital Store e-Commerce Delivery Centre
- Company Promotion Centre
- Kiosk Banking
- Community Library

45
Ensuring at least one digitally literate person per household across India

Connecting minority communities to the Internet

Preserving heritage through digital documentation

Connecting NGOs to the Internet

Connecting digital panchayats to the Internet

Wirelessly connecting remote localities to the Internet using unlicensed spectrum

Connecting traditional artisan clusters to the Internet

Connecting public libraries to the Internet

Connecting micro enterprises to the Internet

Enabling access to government schemes and entitlements for the marginalised

Promoting online citizen journalism to give voice to all
Digitally Empowered Gyarshi
Freeing Tribals from Bonded
Labour in Rajasthan

Gyarshi Devi, 49, is one of the key leaders and founding members of the Jagrut Mahila Sangathan, which has been playing a key role in fighting the problems of bonded labour and overall backwardness of the Sahariya tribe in Baran district of Rajasthan. She is all praise for the digital literacy programmes and Internet connectivity provided by DEF and ISOC under the CIRC and W4C programmes. “We have benefited a great deal from the connectivity. Our membership has grown mainly because women now find it much easier to come together and discuss their problems through video conferencing. They don’t have to go far to attend meetings or inform the organisation about their problems. All they need do is to go to their nearest centre and get in touch with us,” she says. “In 2002, we started with only about 250 women. Deaths in the community due to starvation in 2002 made more women join our organisation. But since 2011, we have grown to a membership of more than 1,500 women. Connectivity has enabled us to communicate with people easily and spread our message. We have also become much more empowered as we can get information on our rights and entitlements under various government schemes, besides any other relevant information much more easily. Our organisation has been empowered significantly,” she asserts.
First CIRC set up towards in Ginjo Thakur Village in Ranchi (Jharkhand); 2 more CIRCs opened in Mamoni in Baran (Rajasthan)

Digital Panchayat is launched and reaches out to 500 Panchayats

CIRC expands to North East region of India in Sonapur (Assam) and Tura (Meghalaya)

CIRC concept extended to Community Radio HenVal Vani in Chamba, Tehri Garhwal (Uttarakhand)

Special Cluster based CIRCs established in Nuapatna & Bargarh in Odisha, and Barabanki in Uttar Pradesh

CIRC Awards launched to recognise and felicitate centres and staff that are doing exceptionally well

CIRC reaches to more than 50 locations

100 CIRCs added across 20 states with support from Vodafone, Indus Towers, Pradan & Tata Trusts

Digital Panchayat is launched and reaches out to 500 Panchayats

First CIRC set up towards in Ginjo Thakur Village in Ranchi (Jharkhand); 2 more CIRCs opened in Mamoni in Baran (Rajasthan)

Digital Cluster Development Programme expands to Kanchipuram (Tamil Nadu), Pochampally (Telangana) and Kollegal (Karnataka)

DEF ties up with Google’s Internet Saathi project to digitally empower 18,00,000 beneficiaries across 10,000 villages of Bihar and Madhya Pradesh

Handloom clusters in Trichy (Tamil Nadu) and Narayanpet (Telangana) adopted under the Digital Cluster Development Programme

DEF launches British Council’s English and Digital for Girls’ Education programme at 21 CIRCs across 12 states

CIRC expands to North East region of India in Sonapur (Assam) and Tura (Meghalaya)

CIRC concept extended to Community Radio HenVal Vani in Chamba, Tehri Garhwal (Uttarakhand)

A CIRC opened in Bhadrak (Odisha)

Digital Panchayat initiated in Kolhapur (Maharashtra) and Alwar (Rajasthan)

CIRC-cum-Digital Panchayat initiated in Rohtak (Haryana)

DEF adopts all district public libraries in Bihar and Telangana in partnership with IPLM

CIRC is set up in Chandauli (Rajasthan) under the first Minority Cyber Gram Yojana of the Ministry of Minority Affairs

150,000 women reached out for digital literacy under Google’s Helping Women Get Online programme

50 women turned into digital entrepreneurs across 5 CIRCs

District Public Library in Bettiah (Bihar), Kanpur and Unnao in (Uttar Pradesh) adopted

25 Soochna Seva Kendras or Information Service Centres established in different districts of Madhya Pradesh, Uttarakhand, Bihar, Rajasthan and Jharkhand

Digital Cluster Development Programme expands to Kanchipuram (Tamil Nadu), Pochampally (Telangana) and Kollegal (Karnataka)

DEF adopts all district public libraries in Bihar and Telangana in partnership with IPLM

CIRCs across India participate and showcase their work at Prayag, a digital mela organised in New Delhi

Digital Cluster Development Programme expands to Kanchipuram (Tamil Nadu), Pochampally (Telangana) and Kollegal (Karnataka)
DEF Footprints CIRC Centres
(till Sept 2017)

Legend
- Location of district
- Number of districts
- Number of centres

22 States & UTs
93 Districts
183 villages

- Rajasthan
- Gujarat
- Haryana
- Delhi
- Chandigarh
- Punjab
- Haryana
- Madhya Pradesh
- Uttar Pradesh
- Chhattisgarh
- Jharkhand
- Odisha
- Assam
- Meghalaya
- West Bengal
- Bihar
- Uttar Pradesh
- Uttarakhand
- Telangana
- Andhra Pradesh
- Tamil Nadu
- Puducherry
- Karnataka
- Maharashtra
- Gujarat
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- 93
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## List of districts by state & union territory

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183 CIRCs
Wireless for Communities (W4C)

Connecting rural communities in India through unlicensed spectrum since 2010

In many rural and semi-urban areas – whether remote or not-so-remote – mainstream Internet Service Providers (ISPs) do not provide connectivity as they feel their operations would not be commercially viable. To overcome this problem, DEF in partnership with first Ford Foundation (for pilot project to provide proof of concept) and then global non-profit Internet Society (ISOC) has used free and unlicensed spectrum provided by the government in the 2.4GHz and 5.8GHz bands, and inexpensive Wi-Fi equipment, to connect as many as 38 districts and 18 states. It is now planning to connect more CIRCs located in areas where mainstream or Class A ISPs do not provide any service by using wireless technology based on free, unlicensed spectrum bands. In India, DEF has pioneered the use of free, unlicensed wireless technologies which have emerged as one of the least expensive technologies to bridge the connectivity gap in remote areas. These wireless technologies have created much interest within the international-development community.

Interestingly, DEF has trained people from the local community to operate and maintain all the wireless facilities that it has set up. Over the last four years, as many as 170 barefoot engineers have been trained. Of these, a total of 20 engineers were trained in Nepal and Bangladesh – 10 in each country.

www.wforc.in
Provided Internet connectivity using wireless technologies.

38 districts, 18 states, 146 access points provided Internet connectivity.

30,000 households inhabiting information dark rural and semi-urban areas provided infrastructure to access the Internet.

3,500 weaver households in Chanderi alone made digitally empowered and provided access to global and domestic markets through a web-based e-Commerce store called Chanderiyaan to enable online sales and marketing of the world-famous Chanderi ethnic handloom brand of sarees, stoles and other textile products.

7 handloom clusters digitally enabled through a Wi-Fi enabled ecosystem.

100 schools

50 panchayats & government offices

100 NGOs and MSMEs

Outcome & Impact
Wireless Connectivity Helps Chanderi Weaver Triple Monthly Earnings

In the semi-urban weaving hamlet of Chanderi, Madhya Pradesh, Mohammed Asim, 26, learned the traditional craft of weaving from his parents and other senior family members. Following his training under the W4C programme at CIRC Chanderi two years ago, he purchased his own computer, along with appropriate software, using revenue from his weaving business to enable him to create his own weaving designs using digital tools such as CAD (Computer-aided Design). He is now using the computer and a three-in-one printer to run a shop from his home providing all kinds of digital services, including mobile recharge, Haj and Umrah travel arrangements, scanning and photocopying apart from expanding his weaving business thanks to computer aided design which cuts down production time and increases overall productivity and profit margins in several ways. “Business is gradually picking up as more and more people are learning about the digital services I am providing,” he says. “Before the Chanderiyaan project was launched here, we used to earn only about Rs 2,000 to 3,000 a month. Now we earn at least three times more than that not only from our traditional weaving business but also from the digital services that we can sell.”
W4C is initiated in Chanderi weavers’ cluster in Madhya Pradesh with ISOC partnership; barefoot wireless engineers are trained

2010

W4C

2011

Community wireless reaches to 3 more locations in Tura (Meghalaya) and Baran and Tilonia (Rajasthan); training programmes are conducted in Bangladesh and Bhutan

2012

W4C network reaches to 8 locations; builds a unique 200-kilometre wireless network for the Sahariya tribe in Baran district (Rajasthan)

2013

Wireless network is established in Guna with support from Ford Foundation; it connects more than 100 node users

2014

Wireless network becomes a strategic tool for all CIRCs established by DEF

2015

Develop an idea of Rural ISP and Community ISP or ISP-in-a-Box; establish a new social enterprise called VOIN (Villages of India Network)

2016

W4C reaches more than 4,000 stakeholders through 200+ access points across 38 districts in 18 states

2017

Project Zero Connect reaches the salt farmers of the Little Rann of Kutch under Phase VII of the W4C project; DEF builds Internet in a Box, a DIY plug-and-play wireless Internet option for the market; DEF joins international movement for community network under Internet Governance Forum
Internet in a Box

Bringing access to information dark areas through rural
a ISP-based model since 2017

Launched under Phase VII of the Wireless for Communities project, Internet in a Box is a unique concept that offers Internet in a box, literally. Internet in a Box is an innovative and cost-effective concept designed by DEF that intends to bring into market a plug-and-play configurable networking solution for deploying a wireless network to people in pre-defined small-range coverage areas.

The box comes designed with built-in equipment and technology — including ethernet cables, relay cables, modems, connectors and user manuals — to deliver Internet connectivity at the last mile and, subsequently, promote adoption of the Internet for digital services related to information and entitlements, primarily in the area of livelihood, education and entertainment. By means of putting a completely localised user manual along with wireless equipment, radio, antenna, devices for measuring line of site, modems, accessories and toolkit to enable the use unlicensed spectrum packed in a physical box. The Internet in a Box can be used and installed by anyone and in any location with the help of a simple DIY manual.

The objective of the project is to create rural entrepreneurs who not only sustain themselves as rural Internet service providers but also cater to the information and digital services needs of their community members.

www.wforc.in/internet-in-a-box
Minority Cyber Gram Yojana

Digital literacy for minority communities since 2014

Keeping in view the low literacy level among the backward sections of the minorities, the Ministry of Minority Affairs of the Government of India in partnership with DEF launched the Minority Cyber Gram Yojana in February 2014. Chandauli, a rural hamlet some 12 kilometres from Alwar by road and about 7 kilometres as the crow flies, was selected for implementing a pilot project for one year as the village and surrounding areas had a high concentration of the minority community and also because the whole area had become notorious for high crime rate due to low literacy levels and the consequent lack of livelihoods.

In just one year after DEF’s intervention, the whole situation changed in Chandauli. Of the 3,500 households in the area, 2,650 households now have at least one person who is digitally literate. Almost all the children of the village have taken to computers just as ducks take to water. Parents and guardians who would have never allowed their young female wards to go out of the house earlier, except for school, now allow them to frequent the CIRC set up by DEF. Farmers are using the Internet to learn about best practices in farming for their chosen crops. Businessmen and traders are using the Internet to make good use of knowledge and information to expand and flourish.

Now functional from a third location, MCGY was first launched at the Rajiv Gandhi Gram Seva Kendra with more than 40 computers to enable the gram panchayat to become digitally empowered. But it never became functional as there was no Internet connectivity. None of the mainstream ISPs provide Internet connectivity in Chandauli. When DEF proposed they would connect Chandauli using wireless technology, the authorities were happy to hand over the Rajiv Gandhi Gram Seva Kendra to them to set up a CIRC. DEF already had a functioning CIRC at Alwar. Using the back-end connectivity provided by BSNL at Alwar, DEF first converted its Alwar CIRC into a Wi-Fi enabled entity and then connected CIRC Chandauli using wireless technology.

Today, Chandauli has become an astounding success story for DEF as it allows one and all to see how DEF’s vision and mission can be realised in reality. Even Facebook Founder Mark Zuckerberg was left “amazed” when he visited Chandauli late in October 2014.
1,000 girls and women made digitally literate and aware of basic women’s rights and gender-related health issue

2,650 households have at least one digitally literate person

3,000 youth, women and children made digitally literate within one year

1,000 farmers use the Internet to learn about best practices in farming, input pricing and sources, and market prices

250+ businessmen and traders use the Internet to source products, know about market trends and buy or sell products online
Vishal Kumar, all of 13 and a student of Class VIII at the local Sheth Ganeshilal Government Senior Secondary School in Chandauli village, loves to play games online and make friends on Facebook. He also has his own e-mail ID and is very much a part of the global community of Internet users. He comes from a family with a monthly household income of less than $100 (Rs 6,000). Thanks to connectivity provided by DEF, little Vishal, in a short span of three months, has become fully proficient in using a computer and the Internet. “I have got my certificate but I still come to this centre every day. I had seen computers in movies and TV ads or heard about them through relatives in big cities. I used to wonder when would I ever get a chance to use a computer. Playing computer games and surfing the Internet was just a dream. Now I can use computers everyday and I love playing games online,” he says with a bright smile on his face. “But I also use the Internet for learning about subjects being taught in the school, and I even found out my roll number for Class VIII board exams,” he says to emphasise that he now knows the world of information and how you can make good use of computers and the Internet to access and generate information. Like Vishal, there are hundreds of other children in Chandauli who have taken to computers. A visit to Chandauli can be mind blowing as it can be a once-in-a-lifetime experience.
Community Radio

Empowering community radio stations across India since 2011

DEF along with the Commonwealth Educational Media Centre for Asia (CEMCA) pioneered the concept of facilitating the set up of community radio stations, content development and technology facilitation. Later, DEF along with CEMCA and other partners such as the Ministry of Information & Broadcasting, set up a Community Radio Facilitation Centre to train people in setting up community radio stations and helping in the process of applying for and obtaining Community radio licenses. DEF has now switched to the next phase of trying to help community radio stations use digital technologies and digital media. It stresses on the use of mobile, SMS and the Internet as tools to enhance the effectiveness of community radio stations. The foundation helps community radio stations in understanding the benefits of new media like Facebook, YouTube, Twitter, Photo Stream, Podcast, e-radio, e-books etc., which can provide a common platform to a number of community radio stations to benefit from each other.

Radio Jagriti in Birni village of district Giridih in Jharkhand and Radio Bulbul in Bhadrak district of Odisha are two other community radio stations for which DEF provides financial, technical, strategic and content support. Henvalvan Community Radio in Chamba region of Uttarakhand is also a partner for DEF’s Soochna Seva programme in the state. Over the years, DEF has also recognised the efforts of at least 25 others by awarding them with Manthan Awards under the category of Community Radio, which was introduced in 2007 to encourage such initiatives.
Outcome & Impact

5 community radio stations funded across India

10 Indian CRS based NGO websites created

Video programmes enabled and shared on radio stations’ website and social media websites for further outreach

1,250 people trained from 50 community radio stations on digital tools for outreach

First collaboration with the Ministry of Information and Broadcasting in India to train community radio stations across India in using digital tools, building a website and integrating social media for community radio stations
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<tr>
<th>Year</th>
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<tr>
<td>2016</td>
<td>SoochnaPreneur</td>
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<td>Soochna Seva</td>
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Digital Panchayat

Connecting panchayats for good governance since 2010

DEF initiated and rolled out the Digital Panchayat project in collaboration with National Internet Exchange of India in 2010. The project was launched keeping in mind that ICT usage is largely missing among elected representatives at the parliamentary, state and panchayat level. The Digital Panchayat programme was designed to revolutionise information sharing, good governance, transparency and publishing information on development indicators through a Web portal for every panchayat. The web-based dynamic digital interface at the panchayat level connected to the electorate and citizens has tremendous relevance and utility in overall governance and development of our grassroots constituencies. It facilitates and improves the day-to-day functioning of panchayats through a two-way flow of information and content. Moreover, information on decisions taken at gram sabha meetings get recorded and shared through the panchayat websites. This enhances transparency as higher level officials and bureaucrats cannot change decisions at will.
Outcome & Impact

500+ panchayats have been digitally enabled and have online presence.

50+ CIRCs in 10 states have digital panchayat centres which help panchayats go online.

2000+ villages can access panchayat information through panchayat websites; achieved transparency of governance at grassroots level.

All Digital Panchayat centres have NIELIT affiliation for providing training to panchayat members.

5000 Gram Panchayat members have been made digitally literate.
Objectives

1. To empower citizens of every panchayat with bottom-up and top-down information and content

2. To improve development and governance public service delivery at panchayat level through information on policy programmes and implementation

3. To create a digital data house at every panchayat level

4. To facilitate growth of panchayat economy through promotion of tourism, e-Commerce of local produce

5. To put every panchayat on the global digital map

6. To generate an ICT environment in every panchayat

7. To give fillip to the Right to Information campaign

Components

- A comprehensive and dynamic local language content online platform
- Integrated digital platform for panchayat demography, society, culture, geography, history & economy
- A bilingual or multilingual information platform
- e-Trade and e-Commerce platform
- Local e-Tourism platform
- Online public grievance redressal forum
- Local online resource centre
- Online communication and information networking platform
- An e-Governance platform
- A digital data storehouse

Activities

- Develop a comprehensive Panchayat Digital Platform
- To train panchayat representatives in IT skills & management of panchayat platform
- Generation of panchayat content
- Regular update and maintenance of panchayat content
Soochna Seva

Facilitating and strengthening public scheme information dissemination and citizen entitlements since 2014

The Soochna Seva project is a joint initiative of DEF & the European Union. The objectives are to aggregate information on all kinds of central and state government schemes and entitlements, and improve access to this information for people and communities living in backward districts of India. The project involves setting up 1,200 public scheme information delivery and access points (Panchayat Soochna Seva Kendras) for final gains in entitlements in five identified backward districts — in six key areas of education, health, livelihood, employment, financial inclusion and social security. Apart from setting up the 1,200 public scheme information delivery and access points (Panchayat Soochna Seva Kendras), it includes a ‘Soochna Vahan’ (Information Van)” that disseminates information about public schemes on-the-go.

As much as 67 per cent of India’s population lives in rural India. This population is largely dependent on government services for some of their most basic needs and livelihood. Realising the need to serve India’s rural, remote and marginalised population with relevant information about governments services, schemes and entitlements in a timely manner, Digital Empowerment Foundation in partnership with Qualcomm launched ‘SoochnaPreneur’. Under this project, youth from rural communities are selected and trained to become Soochnapreneurs (Information + Entrepreneurs) who can offer information services to citizens about their rights, government schemes and entitlements, besides facilitate access to the same by helping individuals apply for the schemes. This project has been launched in Alwar and Barmer in Rajasthan; Guna in Madhya Pradesh; Ranchi in Jharkhand; West Champaran in Bihar; and Bargarh in Odisha. SoochnaPreneur will strengthen the poor information scenario in rural communities of India that are deprived of critical information. Further, to empower the Soochnapreneurs with handy information at hand to offer to citizens, an app called MeraApp has been developed. Developed using cutting edge technology, the Android-based app provides rural India’s vulnerable population with a catalogue of welfare schemes, with comprehensive information on entitlements, in an effort to empower them with access to rights and benefits.
Outcome & Impact

78579 out of 97065 outreached people have availed benefits from various government schemes.

1,200 Kendras are planned to be set up over the next five years.

50 fully functioning centres successfully set up at the five target locations.
Objectives

The prime objective of the project is to address the larger issues of poverty, social exclusion and inequity among marginalised groups through information empowerment on public schemes towards entitlement gains and, thereby, promote and strengthen good governance practices by the local administration. This will lead to improved access to public scheme information in complete life cycle (information access and gains in government entitlements) in identified areas.

Target Groups

50,000 BPL families in 5 backward districts
10,000 Scheduled Tribes families, 10,000 Scheduled Caste families, 10,000 minorities, OBCs (Other Backward Classes) and others, and 20,000 families from the general social segments who are socially and economically poorer.

100,000 total beneficiaries
50,000 BPL families will be covered under education, health, livelihood, employment and financial inclusion access schemes. At least two individuals per household shall be covered. At least 40,000 women and girls shall be covered in health and livelihood access programmes, especially child and maternal health care.

150,000 households from poor social and income groups in 5 backward districts
Additionally, the proposed action will try and reach out to another 150,000 households, and provide public scheme information services and entitlement benefits to another 300,000 beneficiaries (two per household) during project period and through 1,200 service points.
SoochnaPreneur

Providing citizen services at the doorstep through new-age rural entrepreneurs since 2016

SoochnaPreneur is a rural entrepreneurship-based project initiated by DEF in partnership with Qualcomm and the European Union to empower the youth in the villages of India to sustain their livelihood by providing information to those living in information darkness. Under this project, SoochnaPreneurs (Information Entrepreneurs) have been identified and equipped with an Android app that holds a catalogue of welfare schemes, with comprehensive information on entitlements.

Realising the need to serve India’s rural, remote and marginalised population with relevant information about government services, schemes and entitlements in a timely manner, DEF designed a mobile application called MeraApp as part of this project. Developed using cutting edge technology, the Android-based app provides rural India’s vulnerable population with a catalogue of welfare schemes, with comprehensive information on entitlements, in an effort to empower them with access to rights and benefits. Users, assisted by SoochnaPreneurs, can either view the information categorised by provinces and welfare area or enter their socio-economic details to allow the app to display a list of schemes that suits the information fed into it.

A bilingual app that runs on online and offline modes, MeraApp has been envisioned as a platform to empower rural and remote populations with access to information and bring them closer to their rightful entitlements, thus bridging the digital divide and encouraging social and financial inclusion. Further, the app also allows users to submit grievances directed at various government portals and track the status of the complaint.
Outcome & Impact

- **100 SoochnaPreneurs** trained in information-based entrepreneurship
- **13,573 persons registered** under various schemes and entitlements or provided digital service
- **1,272 beneficiaries** facilitated with access to with public schemes and entitlements
- **6 districts in 5 states** have presence of the project
- **100 rural women** SoochnaPreneurs join the bandwagon in Phase II of the project
MARKETS & SOCIAL ENTERPRISES

2016

2015  Digital Cluster Development Programme

2014  1. eHeritage
       2. W2E2

2013

2012

2011  eMSME

2010  Green Prakriya

2009  1. eNGO
       2. Neerjaal

2008  Chanderiyaan

2007

2006

2005

2004

2003

2002
eNGO

Digitally empowering grassroots organisations since November 2009

DEF initially rolled out the eNGO programme in partnership with the National Internet Exchange of India (NIXI) in 2009 with the objective of helping grassroots non-profits working in the development sector set up their own websites and go online. Since 2013, the programme has been further strengthened and expanded in partnership with the global non-profit Public Interest Registry (PIR) which operates and manages the .org top level domain globally. 2014, DEF began working with PIR to launch two new top level domains (TLDs) — .ngo and .ong — exclusively meant for verified non-profit institutions (NPIs)/NGOs/CBOs/SHGs. The new TLDs were rolled out from March 2015. DEF initiated this project to enable non-profits and civil society organisations to have their own websites and online presence. Now, with the introduction of the two new TLDs, non-profits are further empowered as only verified organisations could own a TLD. This has enabled public and private sector donor agencies and global NGOs to readily find and identify organisations that they would like to support and fund.

www.engoindia.org
**Outcome & Impact**

- **12,000+** people benefitted
- **150+** workshops conducted across Asia and Africa

*Online identity*

For grassroots NGOs to give them global presence and more opportunities

*Two new TLDs*

Being offered to all verified non-profit organisations

*5000+*

NGOs across 10 countries in Asia and Africa and 18 states of India have already been provided with their own websites and online presence

*12,000+*

12,000+ people benefitted

*150+*

150+ workshops conducted across Asia and Africa
In partnership with NIXI, 500 grassroots NGOs go online with .in domain extension

2011

Sign up partnership with Public Interest Registry; conduct 15 workshops with 1500 NGOs from 20 states; 1100 NGOs go online with dedicated websites and social media profiles

2012

12 NGOs partner with eNGO programme and reach out to more than 1000 NGOs

eNGO expands to Nepal, Bangladesh, and Kenya; starts eNGO Helpline; eNGO Challenge Awards are launched; 2200 NGOs join the eNGO network

2013

More than 5000 NGOs reached; 3511 NGO websites go online; network expands to South Asia and Africa

2014

. NGO domain announced; 5000 NGOs sign up for it; eNGO expands to community radio stations;

2015

eNGO enters partnership with Tata Trusts to take their 450 NGO partners online

2016

1100 NGOs go online with dedicated websites and social media profiles

2017

eNGO reaches new milestones of 15,000 members and 150 ICT capacity building workshops; total of 5,000 NGOs given online presence and 4,000 have been trained in digital tools for efficiency

2018

NGO becomes a social enterprise

2019

eNGO enters partnership with TATA Trusts to take their 450 NGO partners online

2020

More than 5000 NGOs reached; 3511 NGO websites go online; network expands to South Asia and Africa

2021

eNGO expands to community radio stations;

2022

12 NGOs partner with eNGO programme and reach out to more than 1000 NGOs

2023

. NGO domain announced; 5000 NGOs sign up for it; eNGO expands to community radio stations;

2024

1100 NGOs go online with dedicated websites and social media profiles

2025

eNGO reaches new milestones of 15,000 members and 150 ICT capacity building workshops; total of 5,000 NGOs given online presence and 4,000 have been trained in digital tools for efficiency

2026

NGO becomes a social enterprise

2027

eNGO enters partnership with Tata Trusts to take their 450 NGO partners online

2028

More than 5000 NGOs reached; 3511 NGO websites go online; network expands to South Asia and Africa

2029

eNGO expands to community radio stations;

2030

12 NGOs partner with eNGO programme and reach out to more than 1000 NGOs

2031

. NGO domain announced; 5000 NGOs sign up for it; eNGO expands to community radio stations;

2032

1100 NGOs go online with dedicated websites and social media profiles

2033

eNGO reaches new milestones of 15,000 members and 150 ICT capacity building workshops; total of 5,000 NGOs given online presence and 4,000 have been trained in digital tools for efficiency

2034

NGO becomes a social enterprise

2035

eNGO enters partnership with Tata Trusts to take their 450 NGO partners online

2036

More than 5000 NGOs reached; 3511 NGO websites go online; network expands to South Asia and Africa

2037

eNGO expands to community radio stations;

2038

12 NGOs partner with eNGO programme and reach out to more than 1000 NGOs

2039

. NGO domain announced; 5000 NGOs sign up for it; eNGO expands to community radio stations;

2040

1100 NGOs go online with dedicated websites and social media profiles

2041

eNGO reaches new milestones of 15,000 members and 150 ICT capacity building workshops; total of 5,000 NGOs given online presence and 4,000 have been trained in digital tools for efficiency

2042

NGO becomes a social enterprise

2043

eNGO enters partnership with Tata Trusts to take their 450 NGO partners online

2044

More than 5000 NGOs reached; 3511 NGO websites go online; network expands to South Asia and Africa

2045

eNGO expands to community radio stations;
Green Prakriya

Empowering a sustainable habitat through ICTs since 2010

Green Prakriya was a one-time dynamic platform created to initiate a continuous process of learning, sharing and collaboration among all stakeholders towards empowering a sustainable habitat. The objective was to create a knowledge eco-web of how information and communication technologies can play an instrumental role in empowering a sustainable habitat. It was an integration of all efforts towards the attainment of the goal of Green India and practicing optimal utilisation of the given natural resources as envisaged in the Prime Minister’s National Action Plan for Climate Change.

http://greenp.engo.in/

KEY ELEMENTS

- Tracks and monitors the growth of technology waste in the society
- Promotes multi-stakeholder collaboration for using ICTs to protect the environment
- Creates a rich knowledge base of technology solutions for addressing environment issues
- Conducts awareness and outreach programmes through seminars and workshops
- Encourages policy advocacy for use of ICTs to protect the environment
Neerjaal

Promoting better management of water resources through a drinking water and sanitation Information system since 2009

Neerjaal is a water mapping website that is controlled and managed exclusively by rural communities. It is an ICT-enabled water resource management system for grassroots communities. It collates groundwater-related information and organises water resources with the available information. The Neerjaal software facilitates generating, storing and making public water related information in a village. Above all, Neerjaal helps manage scarce water resources across communities in India. It is the first village-based interactive website that catalogues data and information on water tables and water sources in villages. It has been designed to map water sources, water bodies, consumption, harvesting, shortages and needs at a national level.

www.neerjaal.org
Almost every Indian city is replete with rich culture, traditions, sacred spaces and historical sites that illustrate the country’s unique heritage. At a time of rapid modernisation of public spaces in India — sometimes to the detriment of heritage sites and cultural traditions — it becomes critical to preserve the heritage, making it accessible to all for the sake of posterity. Since most heritage sites are not featured online, the e-Heritage Project seeks to collaborate with communities to bring heritage into the digital space with the following objectives to build capacity of the local community to document heritage in their area; educate and involve the local communities in the preservation of heritage sites, both physically and virtually; and utilise the Internet as an information platform for public education about the Indian heritage.

In an endeavor to achieve the same, Digital Empowerment Foundation in partnership with UNESCO India and the Indian Heritage Cities Network first initiated the project in Chanderi (Madhya Pradesh) and then with UNESCO in Shahjahanabad (Old Delhi) to digitally enhance their heritage and showcase the potential of the areas through rich text, photographs and videos.

**KEY ELEMENTS**

- Over 400 monuments across Old Delhi and Chanderi now have digital presence
- Interactive mobile app for accessing e-Heritage information on the go beta tested
- Better outreach to municipalities and local communities
- Promoting better understanding of the need to digitise heritage and oral history in India and give it a strong digital presence

www.chanderiheritage.in
www.olddelhiheritage.in
Chanderiyaan

Using technology to revive weaver communities since 2009

The Chanderiyaan project is a unique example of holistic development that cuts across several of the six programmatic areas of DEF. Digital intervention by DEF at Chanderi in Madhya Pradesh has ensured an all-round development of a backward and remote region. It is perhaps best to recount the Chanderi story in some detail.

Chanderi is a small municipality in the Ashoknagar district of Madhya Pradesh and is home to some 3,500-odd weaver families who are known world over for producing Chanderi sarees and apparels that generate a revenue of over Rs 1.5 billion every year. But the weaver families who produce these marvellous handloom products based on designs and techniques dating back to the 13th century used to earn on average less than Rs 2,000 per month till 2010 when DEF launched its Chanderiyaan project.

Till 2010, there was rampant exploitation by middlemen, a 40 per cent illiteracy rate, a 100 per cent digital illiteracy rate, none of the 13 schools in the area had a computer lab, the area had almost no health facilities and, most importantly, the craft itself was on the verge of becoming extinct as few children of weavers were willing to learn the craft and continue with the same profession.

But the Chanderiyaan project has changed all that. Today, average household incomes have more than tripled due to various consequences of ICT interventions; almost all weav-
er families have at least one digitally literate person in the household; weavers, especially the younger generation, are now using Computer Aided Design software to develop new, more accurate designs based on modern aesthetics to appeal to the sensibilities of the upmarket global and domestic customer; a variety of ICT-enabled training programmes have helped people in the community learn new vocational skills relevant to the learner’s environment as also English language skills; tourism has been promoted as another revenue earning stream by fully documenting digitally the many historical monuments in the area apart from documenting stories about the art and craft of the weavers on a separate website; all the medicinally and commercially valuable herbs and plants found on a local hill, now called Herbal Hill, have been digitally documented; all 13 schools in the area have computer labs with Wi-Fi connections; about 100 households have Wi-Fi connections; several members coming from the weaving community have now become entrepreneurs using their newly acquired digital literacy skills, a Wi-Fi enabled health centre has come up linked to the Ashoknagar District Hospital through telemedicine facility; and, most importantly, the strangling grasp of middlemen has been broken by empowering the weavers with their own e-Commerce website (www.chanderiyaan.net) to directly sell their products in India and abroad.

After an initial benchmark survey in 2008 to identify developmental issues in the area and work out possible solutions, DEF launched its Chanderiyaan project in February 2009. Initially, a Chanderi Weavers’ Information Resource Centre (CWIRC) was set up to provide training to local weavers in computers and Computer-Aided Design and to spread digital literacy among youth, women and children of the area.

Later in October 2010, the CWIRC was connected to the Internet using wireless connectivity under the Wireless for Communities project of DEF. Over the next two years, weavers were trained to use ICT tools to create new designs by reproducing traditional patterns and combining myriad existing designs with modern design inputs from trained textile designers.

Today, the resource centre has a rich design library from which weavers can choose and take print outs, making it easier for them to gain accuracy in weaving, massively cut down the time taken to create a design, improve productivity and reduce costs. Some of the weavers even make their own designs.

**Profiting from ICT Intervention**

Creating a design in the traditional hand-drawn way on a graph paper took about seven days, and before 2010 only about three or four people specialised in creating designs were available although the total number of weavers had grown to more than 3,500 over the years. The net result was that after weaving 12 sarees of any particular design, weavers would have to sit idle for days together before they got a new design from their master weaver and started weaving again. This idle time is called *baithak* in local parlance. Each master weaver had several weavers working for him and the master weaver would
provide raw materials and a weekly wage to the weavers, then take the finished product, market it and pocket the entire profit which often ran into a few thousand rupees per saree as Chanderi sarees are premium products that sell for anything between Rs. 5,000 to Rs 10,000. Weavers, meanwhile, used to receive a minimum wage of about Rs. 2000 a month after calculating the losses of not earning anything during their *baithak* or idle time.

Now, by using a textile design software at the CWIRC facility, a new design can be created in less than two hours and the software also provides for making changes to the design faster if the weaver does not like what he originally had in mind. This single ICT intervention alone has reduced the idle time of weavers to almost zero as there is now a digital design library from which master weavers can choose and combine various motifs and design elements to make their own designs without having to depend on master weaver’s hand-drawn designs. Even some master weavers now use the facility to get new designs for weavers working under them.

This does not mean the specialised traditional designers have been put out of employment. On the other hand, they were the first ones to get trained on digital design software and they in turn trained others so that today quite a few designers are available who can use the design software. A few of the richer designers have set up home computers and make their own digital designs. Further, hand-drawn designs often had mistakes which meant even more idle time as the process of correcting the design would be time consuming, following which the loom had to be set up again.
Another equally significant benefit is that for the last one year or so — thanks to dependable Internet connectivity, designs created by a trained textile designer and a buyer-friendly website with photographs of new products — an e-Commerce site for selling Chanderi sarees has started doing brisk business. The site had been set up in 2011 with a payment gateway and a virtual shop but it is only in the last couple of years that sales have picked up. This has helped weavers to directly sell their products through the website cutting out middlemen.

The project premises have several looms and weavers can come and use the looms with raw materials and designs provided by DEF to weave sarees and other products such as dupattas, stoles, table cloths that are sold directly through the website. The profits are shared with the weavers so that apart from the wages that they used to earn, they can now get a cut of the profits that did not happen before. While the e-Commerce operations are still owned by DEF, moves are afoot to hive it off as a Section 25 company owned by the weavers that would help augment their incomes further.

Some of the weavers have even taken Wi-Fi connections at their homes and directly sell their products using the Internet and social media.

Thanks to digital literacy and empowerment, Chanderi has changed in every way, benefitting the community of more than 50,000 people, directly or indirectly.

http://chanderiyaan.net/ (e-Commerce store for Chanderi apparels)
http://chanderiyaan.org (project information)
http://chanderiheritage.in (heritage portal)
**Outcome & Impact**

- **100+ households** given Internet connection

- **3 schools** in the area are Wi-Fi enabled

- **15+ shops** and micro enterprises are Wi-Fi enabled

- **1 hotel** (Shri Kunj) given Internet connection

- **Heritage & tourism**
  - Website of 400+ monuments of Chanderi

- **1 community radio** station given Internet connection

- **Average income** of weavers has doubled or trippled since DEF intervention

- **1 telemedicine** enabled PHC connected with district hospital

- **1 e-Commerce** portal set up exclusively for Chanderiyaan

- **100+ women** entrepreneurs empowered and digitally trained

- **1 in-house digital** design centre for textile and apparel design established
Working for Chanderiyaan helps Wasim earn more, improve lifestyle

The Chaderiyaan project has transformed the lives of many poor weavers at Chanderi. “At present, I am weaving for Chanderiyaan and am able to save more than Rs. 5,000 monthly. This has helped me in paying my housing rent. Moreover, the idle sittings due to unavailability of raw materials or design have been eliminated. This leads to an efficient working environment and accurate weaving,” says Wasim Ahmed. But the scenario wasn’t the same in the past. Wasim had gone through numerous ups and downs in life before Chanderiyaan happened. Wasim used to weave in his home with neither adequate space nor suitable working conditions. Moreover, constant delays in designs and raw materials contributed significantly to Wasim’s troubles. Unable to pay his home rent, and incurring a continuous loss of Rs. 400-500 per month, Wasim was not satisfied with his work. After joining DEF’s Chanderiyaan workshop at Raj Mahal, Wasim not only experienced a financial leverage but also admits to a significant improvement in his skills and learning, having learnt to weave on high-end designs. “I had always weft plain and/or light design sarees in the past. But here I got the opportunity to work with a professional designer. His designs are really high-end and definitely encourage me to work more. For the first time, I worked on a Jacquard loom, and I could feel some confidence in me to achieve high levels of weaving skills.” Wasim believes that initiatives such as Chanderiyaan could really bring about a change in weaving clusters. He envisions Chanderiyaan centres across Chanderi so that opportunities could be given to other weavers like him and weaver clusters.
India’s craft traditions and living craft skills, passed on from generation to generation, are not just an important part of its cultural identity but a crucial means of sustenance for numerous communities. According to official figures, there are about 70 lakh artisans engaged in craft production for their livelihood. As per unofficial figures, there are about 20 crore artisans who form the backbone of India’s non-farm rural economy.

Keeping this in mind and inspired by the Chanderiyaan model, Digital Empowerment Foundation in partnership with various CSR groups initiated a number of projects under the Digital Cluster Development Programme (DCDP) that primarily involves inclusive and decentralised use of Information Communication Technology (ICT) and other digital tools in critical aspects of cluster development, especially improving and scaling up weaving skills, designs, marketing and entrepreneurship, besides creating sustainable livelihood options for the youth in the clusters.

Since 2015, DEF has adopted the handloom clusters of Saidanpur in Uttar Pradesh in partnership with Ericsson; Barpali & Nuapatna in Odisha, Kollegal in Karnataka and Pochampalli in Telangana in partnership with Microsoft; Musiri in Tamil Nadu in partnership with Mphasis; Kanchipuram in Tamil Nadu in partnership with Nokia; and more handloom clusters are in the pipeline.

In 2017, DEF established DigiKargha Foundation (North), a Section 8 company, to lead DCDP towards sustainability through a model of social enterprise.
eMSME

Enabling Micro, Small and Medium Enterprises for efficiency and empowerment since 2010

This one-time programme was packaged and designed by DEF to meet market access and expansion, information and promotional needs of micro, small and medium enterprises, self-help groups and other small enterprises in India. The project provided web-enabled facility to MSMEs, SHGs and other small enterprises at minimal cost. It aimed at providing maximum number of entrepreneurs a virtual identity and visibility in front of a global and national audience. Lack of affordable Internet solutions from reliable vendors has been a major hindrance for micro and small enterprises to expand their businesses using the Internet. The eMSME programme proved to be a boon for several enterprises which function at a low scale at the grassroots and helps them get a worldwide presence.

Outcome & Impact

1,350 entrepreneurs
digitally empowered by enabling them to have their own websites and online presence

135 clusters
spread across 5 districts in 3 states now online

All digitally empowered entrepreneurs now have a global outreach to showcase local products and services
Wireless Women for Entrepreneurship & Empowerment (W2E2)

Training women to be entrepreneurs since 2014

The Wireless Women for Entrepreneurship and Empowerment (W2E2) is a specially designed programme to train women from remote rural and semi-urban areas in the use of digital tools and the Internet for doing business so that they can set up and run micro and small businesses on their own.

Women selected for such trainings are either those who have already been trained to become entrepreneurs under the National Skill Development Programme and are currently running businesses of their own or those who wish to launch a small or micro business on the basis of their existing skills and knowledge.

Post training, DEF provides the women participants laptops and wireless connectivity using free unlicensed spectrum so that they can not only use these for their own businesses but also become change agents in their villages by spreading digital literacy among children, women and young people.

The programme aligns with the mission of Internet Society (ISOC), which is to promote open development, evolution and use of the Internet for the benefit of all people throughout the world. So far, DEF has trained 50 women from five locations – Chanderi in Madhya Pradesh, Baran and Shivpuri in Rajasthan, Ranchi in Jharkhand and Tura in Meghalaya.

Outcome & Impact

50 women from across 4 states are now trained to use computers and the Internet to operate as entrepreneurs.

www.wforc.in
Till as late as March 2014, Sunita Mahato, 22, wife of a marginal farmer, used to manage her home and the education of her two school-going children with a household income of less than $100 (Rs 6,000) a month. That has changed now. Empowered by digital literacy, access to the Internet and some training in vocational skills, she now leads five Self Help Groups (SHGs) working in such areas as piggery and poultry, production of vermicompost, bio-pesticides and so on. She now uses Information and Communication Technology (ICT) tools to keep records of the operations of the SHGs she leads, manage their accounts, keep track of inventories and sales and more. She also surfs the Internet to know about best practices in her business areas. Sunita has studied up to Class XII and comes from a backward community that the Indian government classifies under Other Backward Castes (OBCs). She lives in Rupru village, some 50 kilometres away from Ranchi — the Capital of one of India’s newest and also least developed states Jharkhand. It’s a fairly remote village tucked away in the hilly terrain of the Chhotanagpur Hills where no commercial Internet Service Provider offers connectivity as the cost of doing so make the services unviable for them. “I had never even dreamt of setting eyes on a computer let alone touching it and using it. But now I use the computer in various ways like keeping accounts, maintaining other records and also surfing the Internet to know more about the businesses that our Self Help Groups are involved in,” she says. She is now becoming a master trainer and intends to train many more women and children in her village in how to use the computer and the Internet. “That will also help me earn some money because I will be charging a fee for the training,” she says.
1. Education & Digital for Girls’ Education
2. Internet Saathi
3. DigiPrayas
4. RAISED
5. ITE

2014: Helping Women Go Online

2013: 1. Digital Literacy, Safety & Security Programme
       2. District Public Library Programme

2012: 1. National Digital Literacy Mission (NDLM)
       2. Citizen Media Network

2011

2010

2009

2008

2007: Gyanpedia

2006

2005

2004

Other Capacity Building Programmes
DEF in partnership with Media Lab Asia of the Ministry of Communications and Information Technology, Government of India, launched Gyanpedia in 2007 as an online repository of digital content generated by teachers and students of rural schools from all over the country. The portal creates a comprehensive, multilingual and dynamic virtual platform, which enables content exchange for the learning community all over the country. It helps facilitate learning, sharing and thereby boosting e-learning and e-education processes. The process largely contributes towards India emerging as a knowledge society and tries to preserve local knowledge.

Gyanpedia promotes computer-aided learning at the grassroots level of the education system. It aims at preserving valuable thoughts, ideas and creativity of schoolchildren using ICT. It also promotes the idea of creating an educational content library for learning communities to share and exchange knowledge and ideas. It largely aims at facilitating educational content promotion, showcasing, sharing, exchange for wider benefit of education community from across government, civil society and corporate entities with CSR interventions.

www.gyanpedia.in
Key Facts

India’s first multilingual e-content learning platform for learning communities. Gyanpedia has aggregated digital content of children from 7 states – Rajasthan, Uttarkhand, Odisha, Tamil Nadu, Andhra Pradesh, Karnataka and Kerala. It is available in 7 languages and covers teachers and students of Classes VI - XII. It is equipped with all knowledge sharing services such as Blog, Wikipedia, gallery, forum, events, FAQs, feedback and videos.

E-content created by local students and teachers from more than 500 schools across the country has been shared on an advanced search-based web portal. All the content has been categorised subject wise, topic wise and school wise. Content in the form of pictures is on the portal as well. Numerous videos of children’s activities and creativity are available. Education reference portal is an integral part of Gyanpedia and allows visitors and learners to imbibe from different sites. Information on and for different education facilitators and knowledge providers is available on the portal.

A registered user can share his/her content, pictures, projects or videos by uploading the same on Gyanpedia.

Outcome & Impact

500+ schools in 7 states connected with websites
400,000+ students reached out
1000+ projects across 15 topics uploaded till date
National Digital Literacy Mission

Taking digital literacy to each and every household since 2012

The National Digital Literacy Mission (NDLM) is a major feather in DEF’s cap. Today, the NDLM has been adopted by the government of India as a full-fledged central government scheme in mission mode to ensure that every single household in India has at least one digitally literate person. The mission was, however, originally pioneered and developed by DEF in partnership with Intel to complement the government’s objective to ensure digital connectivity to all gram panchayats through the National Optic Fibre Plan (NOFN) to be implemented by the Bharat Broadband Network Limited (BBNL). NDLM is also a perfect example of how DEF has always taken the initiative to adopt a multi-stakeholder approach to address the issue of digital inclusion. The Government of India first thought of making at least one person in every household in India digitally literate as early as 2010 and invited private sectors partners, NGOs and other public sector agencies to implement the scheme with a multi-stakeholder approach. Then BBNL was established in 2012 to implement the NOFN and provide the connectivity backbone. It was then that DEF came forward to actually work out the framework for NDLM that has now been adopted by the central government of Prime Minister Narendra Modi under the Digital India programme.

DEF implemented NDLM as a pilot project in three panchayats in three different states under its own Follow the Fibre (FtF) project to set up Digital Literacy Missions in the first three gram panchayats that got broadband connectivity from BBNL. DEF used the pilot project to showcase how making panchayats and citizens digitally literate can change the scenario of governance, empowerment, social inclusion, educational approach and employment. Today, DEF’s pioneering work has paid off and NDLM is now being implemented across the country in mission mode by central and state governments.
Outcome

Encouraged creation of local content among beneficiaries who are in development works.
Contributed in accelerated technology adoption for improving socio-economic condition.
Enabled connectivity and access in an information poverty environment.
Contributed in the quality education landscape from manual to digital and encouraged locals to bring new paradigm shift in learning and teaching.
In a span of 10 months, the programme conquered the challenges of digital literacy in rural India; brought 100% digital literacy in all three locations.
Promoted entrepreneurship and employability change in approach among youth, including young women.
Contributed in arresting school dropouts and making learning and teaching more creative and of better quality.
Sensitised the youth about the importance of proper use of ICT and Internet.
Encouraged learners who can become invaluable service providers for larger market in ICT field.
Infused new methodology for livelihoods and to make living sustainable.

Impact

9,500+ digital literates achieved
8,000+ households reached

10+ panchayats covered
10 people trained as professional Master Trainers; 10 informal trainers
FLAME award received for 100 per cent literacy in 3 panchayats
Integrated approach to Technology in Education (ITE)

Making education learner-centric rather than teaching-oriented

Digital Empowerment Foundation and the Sir Dorabji Tata Trust (SDTT) have initiated the Integrated Technology in Education (ITE) initiative in the North East region of India. The three-year pilot initiative implemented with government schools in Juria block of Nagaon district in Assam and Rongram block of West Garo Hills in Meghalaya seeks to use ICT to support learning of school subjects for students of Classes VI to IX in a more knowledge-based and quality-oriented manner.

The ITE model aims to improve learning and teaching, bridge the digital divide, and foster a sense of good digital citizenship among adolescents. It also aims to break the monotony of rote learning and teacher-directed learning by inculcating a culture where learners use technology through for own subject/lesson-based learning, thus modernising the way children and adolescents learn. Further, ITE will improve retention and interest in schooling, raise learning levels among children, foster English proficiency, encourage critical thinking, inculcate the values of responsible citizenship, and help adolescents make better career choices.

ITE

www.itenortheast.in
Helping Women Get Online

Empowering women by making them digitally literate since 2014

This is a Google initiative that DEF implemented in August 2014 through its CIRCs. The programme sought to empower women by helping them through a step-by-step guide on how to use the Internet. The programme teaches basic computer skills, Internet skills, Internet on mobile, chat, e-mail, etc.

Internet Saathi

Creating a ripple effect of digital literacy among women

Information and Communication Technologies (ICTs) have accelerated economic growth and propelled a wave of engagements that have touched human lives, changing the way communities interact, increasing opportunities for livelihood and crossing the barriers of inequitable growth. ICTs have taken up such pre-eminence in our everyday lives, that we now have access to a bank of knowledge & services at our fingertips. As a result, people in tune with ICTs are no longer isolated and are part of the fast changing global platform. However, there are still millions who are yet to gain access to the ICT platforms for knowledge and opportunities, especially the women. But at some extent, Helping Women Get Online (HWGO) had empowered thousands of rural women in the past.

Now, Internet Saathi, a joint initiative of Google and Tata Trust, is committed to increase interest and usage of the Internet among women in rural areas. The purpose of Internet Saathi is to reach as many rural women as possible in select Indian states with Internet literacy. DEF, the implementation partner of the project in Madhya Pradesh and Bihar, is dedicated to training rural women in the user of Internet. These trained women will then train others like them, creating a ripple effect of basic digital literacy. Through its existing CIRCs and local partners, DEF has reached out to 20,51,456 beneficiaries (women and girls) through 2,937 Internet Saathis in 10,662 villages.
RAISED

Raising standards of education and ensuring compliance with RTE

Since its inception, DEF has been empowering the millions by taking multi-stakeholder approach and a six-fold path to enable communities, schools, governments, civil society organisations and micro-enterprises to avail the benefits of the Information Age. As part of this approach, DEF — with the support of Capgemini India and the Government of Uttar Pradesh in December 2015 — adopted 10 government primary and junior schools in Gautam Buddha Nagar, Uttar Pradesh, under an initiative called Raising Standards of Education and Going Digital or RAISED.

Under the RAISED project, DEF plans to improve learning and teaching levels by using modern teaching methods and emerging ICT tools & technologies. DEF is also committed to bring some short-term solutions in fulfilling the basic needs in schools in the areas of health, hygiene, cleanliness, safety and security of students.

The overall objectives of the RAISED project are promoting e-learning mechanisms in schools; introducing connectivity through wireless broadband; training teachers in use of ICT; transforming schools education through IT-based education; encouraging child-friendly school management system; advocating and showcasing best practices; and ensuring compliances with the Right to Education Act (RTE) and Sarva Shiksha Abhiyan (SSA) norms.

www.raised.org.in
Digital Literacy, Safety & Security Programme

Meeting the security and privacy needs of India since 2013

Digital Literacy, Safety and Security is an initiative of Digital Empowerment Foundation and Google India. The project aims at imparting digital literacy to ensure user protection in India. It also promotes ways and means for users to stay safe online by advocating digital security and privacy needs through workshops in different states of India. Similar trainings have been conducted for civil society organisations, human rights defenders and youth.

Outcome & Impact

In 500+ centres awareness is created
5 trainings conducted in 5 cities across 5 states
1,250+ people are trained in digital literacy, safety and security
District Public Library Programme

Transforming dying district libraries into thriving public spaces of relevance and empowerment since 2013

This project is yet another pioneering DEF initiative with support from the Bill and Melinda Gates Foundation. The project seeks to introduce digital interventions to bring about integrated development and thereby rejuvenate public libraries. The programme tries to not only modernise libraries with digital resources but also convert them into major change agents for spreading digital literacy, improving access to critical information and encouraging learning and knowledge acquisition.

The cross-cutting goal is to make better use of hitherto underutilised knowledge and material resources of these libraries into powerful weapons of community empowerment.

So far, three district libraries in Unnao and Kanpur in Uttar Pradesh, and Bettiah in Bihar have been transformed into vibrant public spaces of information access and community engagement.

After the successful implementation of District Library Programme in Bihar and Uttar Pradesh, DEF has started the second phase of the project to reposition public libraries in India. As part of DEF’s Integrated Digital Library Programme (IDLP), in collaboration with the Bill & Melinda Gates Foundation and Indian Public Library Mission Secretariat in New Delhi, DEF launched the second phase December 2016 in Telangana. The project aims to strengthen the public library system and its staff in 10 public libraries across 10 districts of Telangana in India to advance the goal of transforming public libraries as Information, Knowledge, and Resource & Service Centres for citizens and communities with digital integration.

Outcome & Impact

- **5,000 citizen users** provided with access and service resources
- **2,500 youth** provided career guidance and coaching
- **1,300 citizen users** in ICT management trained for contributing to library management
- **13 public libraries** undergo digital transformation in three states
Citizen Media Network

Promoting citizen journalism and voice of alternative media in India and South Asia since 2012

To tap the power of user-driven publishing through the Internet and social media, DEF launched Citizen Media Network (CMN) as a short-term project which aimed at nurturing citizen journalism in India and South Asia, and provide the right ICT tools for empowering digital journalism and techniques.

**KEY ELEMENTS**

Many workshops on training and skill development are conducted for rural reporters.

It provides training to rural reporters on powerful TV and web news production.

It provides training through workshops for rural reporters to develop effective stories and provides them with the right tools to publish them digitally.

In collaboration with IGNOU, it offered a citizen journalism course for aspiring rural reporters.

CMN provides a platform for developing motivational development stories from rural lives.

It offers training for rural community development activists.
English and Digital for Girls’ Education (EDGE)

Improving confidence and leadership qualities among young girls

The English and Digital for Girls’ Education (EDGE) programme, an initiative of the British Council, aims to improve the life prospects of adolescent girls in socio-economically marginalised communities in Bangladesh, India and Nepal. The programme focuses on enhancing participants’ English proficiency, digital skills and awareness of social issues. As a result, participating girls will be better able to make more informed and independent life choices, as is their right, in order to contribute more fully to the family, the economy and society. In addition, the programme aims to improve the leadership skills of a smaller group of peer leaders drawn from the same communities of adolescent girls. The vision is to enable adolescent girls from marginalised communities to make more informed and independent life choices, as is their right, in order to contribute fully to the family, the economy and society.

In 2016, the British Council partnered with DEF to deliver the project to adolescent girls from marginalised communities through its CIRCs in after-school, non-formal, safe spaces in their communities. Participants developed English and digital skills using self-access learning resources installed on laptops. Speaking and writing skills were strengthened by the use of an accompanying workbook. In addition, a series of flashcards and games developed grammar, functional language and vocabulary skills. Close to 100 adolescent girls were enrolled for the programme, and they had to undergo a 40-hour course. The success of the pilot led to its expansion, covering 19 districts across 12 states, reaching out to 575 girls through 23 CIRCs.

www.britishcouncil.in/english-and-digital-girls-education-india
Other capacity building programmes

The following are some of the other capacity building initiatives of DEF. They are either stand-alone projects or are part of other projects.

**DIGITAL LITERACY PROGRAMME**
This is a part of the CIRC project. All CIRCs implement a digital literacy programme of 40 hours for rural youth, women and children. Training is provided to impart basic computer and Internet skills, including use of social media and Internet-enabled mobile phones.

**DIGITAL SKILLS PROGRAMME FOR EMPLOYABILITY**
This is a three-to-six-month customised hands-on training and capacity-building programme for rural youth to enable them to obtain employment.

**eNGO CAPACITY BUILDING PROGRAMME**
As part of the eNGO project, this is a one, two or three-day customised residential ICT programme for NGOs and their functionaries to train them on how to use digital tools, the Internet and the opportunities available online to enhance the effectiveness and impact of their work. The programme also enables NGOs to have their own website and manage them on their own.

**DIGITAL PANCHAYAT CAPACITY-BUILDING PROGRAMME**
As part of the Digital Panchayat programme, functionaries of panchayats that are digitally enabled are provided training to enable them to use ICT and the Internet for their daily work and also help them adopt digital medium as a tool for accessing information for governance and services.

**eMSME CAPACITY-BUILDING PROGRAMME**
As part of the e-MSME project, entrepreneurs running small and micro enterprises are provided one, two or three-day customised residential ICT training about how digital tools can help them in their business and skills. The programme also enables micro, small and medium enterprises to have their own website and manage them on their own.

**WIRELESS FOR COMMUNITIES ‘BAREFOOT ENGINEERS’ TRAINING PROGRAMME**
Hands-on and on-site training is provided to local youth in basic wireless technologies so that they can operate and maintain wireless networks in remote areas.
SOCIAL MEDIA FOR EMPOWERMENT PROGRAMME
This is designed for non-profit organisations and also for government departments and ministries, including elected members as to how social media can be used effectively.

DIGITAL EMPOWERMENT YOUTH FELLOWSHIP PROGRAMME
This is a one to three months’ programme designed for youth who would like to work with rural communities in order to learn about the rural lifestyle and in conjunction offer digital interventions. This is an on-site programme where the youth are supposed to be stationed at one of the hundreds of Community Information Resource Centres or Digital Cluster Resource Programme Centres that are run and managed by DEF.

mGOVERNANCE PROGRAMME
Three-to-five-days residential programme for government officials on mobile governance with site visit and specialised video-enabled case studies.

ICT FOR RURAL ENTREPRENEURSHIP PROGRAMME
Five-to-ten-days residential programme for 10th and 12th pass rural youth to enable them to start and manage digitally-enabled entrepreneurship ventures with profitability. Course is designed with practical experience and hands-on training.

DIGITAL CONTENT PROGRAMME
This is a three-day residential programme on digital content creation including how to use all kinds of digital media.

DIGITAL MEDIA FOR COMMUNITY RADIO PROGRAMME
This is a specialised and customised programme, exclusively designed for NGOs who run community radio stations, to train them in how to integrate and converge with digital media.

DIGI PRAYAS
Post-demonetisation in November 2016, DEF started provided awareness to rural communities, especially small enterprise owners, about digital financial literacy, mobile banking and mobile wallets. Rural unbanked populations were also encouraged to open bank accounts. DigiPrayas in one key programme launched with this vision in partnership with Axis Bank. In its second phase, the project, now called DigiSupport, will assist individuals to open bank accounts and train them in carry out mobile banking and mobile payments.
KNOCKLEDGE HUB & DATABASE

2016

2015  CIRC Awards

2014  eUttara Awards

2013  Social Media for Empowerment Awards

2012  eNGO Challenge

2011  Mobile for Good Awards

2010  1. mBillionth Awards
      2. eNorth East Awards

2009

2008

2007

2006

2005

2004  The Manthan Awards

2003

2002
Manthan Awards South Asia and Asia Pacific

Recognising and honouring ICT interventions for development since 2004

DEF in partnership with World Summit Awards, Ministry of Communications and Information Technology of the government of India, and other organisations interested in ICT for development launched the Manthan Awards in October 2004 to identify, reward and give recognition to significant contributions in the field of ICT for Development (ICTD). The specific objective was to bring to the attention of all stakeholders such as governments, businesses, industries and civil society organisations that are engaged in the development sector and employ significant ICTD initiatives and valuable digital content that are successfully serving underserved communities, especially in rural areas and urban slums. Most of these success stories go unheralded in the mainstream media as these ICT interventions often operate in media-blind areas and sectors. Consequently, there is little knowledge sharing among the progenitors of these initiatives which in turn hinders the emergence of an eco-system that feeds on this knowledge and enables scaling up of these initiatives and coordination among them for a much larger impact. The Manthan Awards sought to bridge this gap and create a platform that would not only highlight such ICTD initiatives but also help create a network and database of such players that would enable all stakeholders to contribute in a way that would enhance the overall impact of ICT interventions. Initially, the awards were limited to entries from India. In 2008, the scope of the awards was expanded to South Asia and in 2012 to the entire Asia Pacific region. Today, the awards invite entries from the following 36 countries: Afghanistan, Australia, Bangladesh, Bhutan, Brunei, China, Cambodia, Fiji, Hong Kong, India, Indonesia, Iran, Japan, Kiribati, Laos, Macau, Malaysia, Maldives, Mongolia, Myanmar, Nepal, New Zealand, North Korea, Pakistan, Papua New Guinea, Philippines, Samoa, Singapore, Solomon Island, South Korea, Sri Lanka, Taiwan, Thailand, Timor, Tonga, Vietnam.

This single project has helped DEF to create a knowledge database of more than 4,000 different and unique digital interventions that serve the developmental needs of underserved and marginalised communities.

Today, the Manthan Awards have become a platform for all innovators and practitioners of ICTD to network, forge partnerships, get mentoring and access funding to scale up for greater impact.

www.manthanaward.org
**Outcome & Impact**

4,202 ICT
on ground interventions database
created from nominations received in
13 years from 36 nations across South
Asia and the Asia Pacific region

340 ICT practitioners
honoured and felicitated

“I vividly remember even today, Osama Manzar walking into my office with one Professor Krishna V Sane with the proposal of launching an award scheme which he had christened as Manthan. It only feels like an event that happened the other day. It is heartening to know that Manthan and the Digital Empowerment Foundation celebrate over a decade of service to the ICT fraternity, encouraging innovation not only in India but in the entire Asia Pacific region. The humble beginning has resulted in witnessing DEF grow and flourish while also being a learning organisation. Congratulations to all those who have carried DEF through, and to all those who would help it reach its teenage and eventually see its impact visible in the lives of the thousands of communities it serves.”

*Dr. B. Shadrach*
*Independent Consultant*

“There is a churning taking place in India & I really hope it takes us to a destination what we witness at Manthan today. One word to say is exhilarating.”

*Salman Khurshid*
*Former Minister of External Affairs, India*
mBillionth Awards South Asia

Recognising innovations in mobile technology and applications serving citizen needs in South Asia since 2010

With the rapid increase in penetration of mobile technology across almost all socio-economic strata around the world, the mobile phone has emerged as the most powerful digital tool for empowerment across the world. This is more so in South Asia, Asia Pacific and other parts of the developing world. Recognising this phenomenon, in 2010, DEF spun off from its highly successful Manthan Awards a separate award — the mBillionth Awards South Asia — only for recognising excellence in mobile innovations for development. The industry-driven and peer-acknowledged mBillionth Awards acknowledge South Asia as a key hub of the world’s mobile and telecom market in terms of penetration and innovation. The region, however, suffers from a significant digital divide. These awards recognise that at the moment, mobile phones are surpassing all other media in terms of penetration in the region: TV, radio, computer, newspapers, magazines and landlines. Mobile platforms are becoming the natural choice for smashing the information barrier and extending essential and innovative digital services to the broadest section of the population. The awards, therefore, seek to not only reward all those who are taking initiatives to bridge the digital divide, empower people and bring about greater socio-economic equality but also create an ecosystem and network of such innovators and developers so that they can learn from each other, collaborate and scale up.

mBillionth Award South Asia

www.mbillionth.in
When an event has reached 5 years, it would go a long way. mBillionth is here to stay!

Marten Pieters  
Former MD & CEO, Vodafone India
Mobile for Good Awards

Motivating and encouraging innovations in mobile content and services delivery by NGOs that benefit communities since 2011

Vodafone Foundation has been working across many countries with a programme called ‘Mobile for Good’ to help mobile-based applications benefit communities at large in the domains of education, women, agriculture and livelihood. In 2011, Vodafone Foundation launched the programme in India by partnering with DEF through the mBillionth Awards, which has been identifying mobile and telecom-based applications in India and South Asia. Since 2011, Mobile for Good programme in India has identified and supported 18 projects by diverse not-for-profit organisations spread across the length and breadth of the country. In 2014, Mobile for Good Awards became separate from mBillionth Awards and is now being treated as an independent award.

Mobile For Good Awards
http://www.vodafone.in/mobile-for-good/home.html

Outcome & Impact

Rs 16.9 million worth of grants have been given to 18 NGOs

492 mobile interventions for development database created in 4 years
eNGO Challenge

Encouraging NGOs working in the field of ICT for development since 2012

The eNGO Challenge aspires to create an ecosystem of NGOs, which use Information Communication Technology (ICT) and digital media for good governance practices for the benefit of societies and communities at large. The challenge seeks to recognise, salute and honour best NGO practices using ICT in any part of the world. The eNGO Challenge was initially launched as a joint initiative of Public Interest Registry (PIR) and Digital Empowerment Foundation (DEF). It is now an independent awards platform.

The eNGO Challenge
South Asia
www.engochallenge.org

Outcome & Impact

5 editions
honoured and felicitated 99 winners

Database of 1366
ICT for Development interventions by NGOs have been created from 8 countries in Asia and Africa
An initiative to promote social media as a strategy for development and good governance since 2013

The emergence of new media and social media platforms has pushed traditional media to the fringes. Digital outreach medium and social media platforms like Facebook, Twitter, YouTube, blogger, Google Hangout, Flickr, Foursquare, Snapchat, Instagram, etc. are playing a critical role by involving millions of people in real time. Social media is the illustrious and most potent democratic tool of empowerment, promotion, participation, commerce, cause, campaign, activism, among others. In an effort to identify how social media platforms have been utilised for their campaign-and-cause-based programmes, Digital Empowerment Foundation initiated Social Media and Empowerment Awards in 2013 to honour and recognise those social media initiatives that are using social media technology as a catalyst for communication, spreading awareness and fulfilling their mission and needs of social development.

www.sm4e.org

Outcome & Impact

80+ best practices using social media have been honoured and felicitated

Database of 580+

social media for development and good governance interventions collected in 4 years
eNorth East Awards

Nurturing best practices in ICT for development and good governance in North East India since 2010

The North East Development Foundation in partnership with DEF launched the e-North East Awards in 2010 to scout, review, select, felicitate, award and nurture best practices in information communication technology for development and governance in North East India. The award seeks to bring into focus practices in various categories that have impacted development and governance processes for good. The award platform has so far a repository of more than 200 best practices from the region. It has established itself as a unique platform and a movement to contribute to the emerging ICT environment in the region.

www.enortheast.in

Other awards

DEF has also initiated two award platforms to identify and honour regional initiatives in ICT for development. These are the e-Uttara Awards for honouring best practices in ICTD in Uttar Pradesh and the Manthan South West India Awards for honouring and encouraging ICTD interventions in South West India.

www.euttara.org  www.southwestindia.manthanaward.org
CIRC Awards

Recognising centres that showcase exemplary work at the grassroots level for leading positive transformation since 2016

Community Information Resource Centres (CIRCs) are community-driven; bottom-up platforms that seek to bridge the digital divide and transform information-dark communities into information-empowered communities. These technology hubs aim to facilitate unrestricted digital access to knowledge, along with network support with provisions of Information and Communication Technology (ICT) services in order to serve information deprived corners of the country. The CIRC Award was launched in 2015, with the aim to identify and felicitate those unsung heroes from the CIRC family who extend beyond their capacities to work for the upliftment of the underserved, help them connect with mainstream progress and improve lives. It also brings together CIRCs, Soochna Seva Kendras, Digital Public Libraries, Digital Cluster Centres and ITE Kendras from across the country, to help them recognise and adopt best proven practices and enhance their endeavors to exceed set goals and expectations.

www.circindia.org/circ-award

Outcome & Impact

23 centres honoured and felicitated

Increase in confidence & will among CIRC ground staff to deliver high-quality services to their community members
Digital Empowerment Foundation, since its inception, has used awards and recognition as a great form of institutionalisation for the empowerment of the community and targeted sector. DEF awards have helped in creating widespread network of good, viable, working projects using digital tools and making impact on people at large. The awards also created an ecosystem of stakeholders and provided knowledge exchange as means of empowerment.

AWARDS TIMELINE 2003-2017

2003
Founder of DEF gets selected as e-Content Expert for India for World Summit Awards

2005
Manthan Awards as WSA India chapter with 8 categories is launched
Mobile added as a category

2004
DEF signs MOU with World Summit Awards (WSA)
DEF develops an award system for identifying best ICTD projects

2006
Increases the categories to 13
Ministry of Comm. & IT and government of Uttarakhand join as partners
PHD Chamber of Commerce supports the awards

2007
27 states participate in nominations
Categories up to 15; community broadcasting added
Ministry of Comm. & IT continues support

Institutionalisation of Manthan Awards – e-Content for Development
American India Foundation supports the awards as Principal Partner
American India Foundation continues its support
Number of Nominations

<table>
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<th>Year</th>
<th>2008</th>
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- **2008**: Ministry of Comm. & IT continues support
- **2009**: Ministry of Comm. & IT continues support
- **2010**: Ministry of Comm. & IT continues support
- **2011**: Ministry of Comm. & IT continues support

**2008**
- Expands to South Asia
- Governments of Jharkhand, Nagaland, Maharashtra & Lakshadweep join as partners
- Ministry of Comm. & IT of Afghanistan, & government of Sri Lanka's ICTA join as partners

**2009**
- Mint newspaper becomes strategic partner

**2010**
- Institutionalisation of mobile driven awards
- Mint, Ministry of Comm. & IT & ICTA of Sri Lanka become principal partners
- IMI Mobile & On-Mobile – both leading mobile companies – gives support

**2011**
- Special awards introduced for the north eastern region of India
- First eNorth East Awards

- ORG joins as Principal Partner
- Vodafone joins as Presenting Partner
- OnMobile & Nokia Join as partners
- Women Innovation for Mobile
- Vodafone Mobile for Good
- Allocated Rs. 3 million for winners
- Allocated Rs. 2 million for winners
2012
- Vodafone signs partnership for 3 years
- One97, OnMobile, Comviva join as partners
- Vodafone becomes Institutional Partner for 4 years
- Spreads to Asia Pacific

2013
- ORG joins as Institutional Partner
- Expands to South Asia
- Introduced ‘District Collector as Digital Champion’ as special category awards

2014
- American Centre joins as Principal Partner
- eUttara: Manthan Awards for Uttar Pradesh introduced
- Strengthens ‘District Collector as Digital Champion’

First eNGO Challenge

First Social Media for Empowerment Awards

2nd M4G
- Rs 4 million for winners

3rd M4G
- Rs 5 million for winners

4th M4G
- Rs 5 million for winners
First CIRC Awards

2015
- Unconference style introduced
- ABARD & ERICSSON joined as category sponsors
- Brings together CIRCs, Soochna Seva Kendras and District Public Libraries from across the country under one roof

2016
- 266 entries from 08 countries
- Largest gathering of 1000+ NGOs
- Associate partner - Qualcomm

2017
- 296
- 331
- 93
- 162
- 13th 4th
- Opened doors for NGOs who are doing groundbreaking work irrespective of the use of digital technology
- Manthan Award for Bangladesh introduced
- Organised under Digital Mela, Prayag (1st ever Grand Digital India Mela or Fair of People, Practice & Innovation)
- Live streamed the event with GoNews as Partner
- Crowd-sourcing Week as Institutional partner

Instituted 8 Awards

Spread across India, South Asia & Asia Pacific

Over 8000 Projects and Innovations collected

Database of projects built across Business, Agriculture, Travel, Heritage, Health, Women, Children, Education, Learning, Governance, Disability, Financial Inclusion, Commerce, Banking, Entertainment, News & Journalism, Media, etc

Best Practices of the use of ICT, Mobile, Social Media & other Digital Tools collected
RESEARCH & ADVOCACY

2016  Digital Citizen Summit

2015

2014

2013  1. Red Rickshaw Revolution
       2. Mobile for Social & Behavioural Change

2012

2011  Internet Rights

2010

2009

2008

2007

2006

2005

2004

2003

2002
Red Rickshaw Revolution

Celebrating on-the-wheel journey of ordinary women in India since 2013

On 9th March 2013, three women and a crew of 25 from Vodafone Foundation and DEF embarked on a nine-day auto-rickshaw journey from Delhi to Mumbai, travelling over 1,500 kilometres spanning five states: from the hustle bustle of India’s Capital to the deserts of Rajasthan, spectacular Western Ghats and the bright lights of Mumbai.

Along the route, they discovered and encountered ordinary women doing extraordinary things. Using innovative technology, this entire expedition was also experienced online. Each day, the crew celebrated the achievements of amazing women and shared their stories online.

The Red Rickshaw Revolution was all about celebrating the achievements of inspirational women across the country and raise crucial funds for three NGOs which are working to empower many more – ApneAap Women’s Collective (AAWC), Breakthrough and Corp India.

The Vodafone Foundation had pledged to match up to Rs 8.5 million of the donations.

A similar journey from Delhi to Kolkata was organised in 2014 and 10 women Sarpanches of gram panchayats were identified as grassroots change leaders. DEF has rewarded these women by setting up CIRCs at each of the 10 gram panchayats headed by these 10 remarkable women.

www.redrickshawrevolution.in
20 women panchayats from 8 states identified and facilitated with a district Community Information Resource Centre in their region, in 2014

10 women from 5 states identified for being catalysts of change in their society, in their own way, in 2013

Published a book on the interactions & experiences throughout the journey, written by a 14-year-old journey companion

Created a photo library of 200 selected photos, which are now available online on Flickr

Filmed 98 videos on women heroes from around metro cities about “why they are proud to be a woman”

Created 3 parallel running websites (English, Hindi, WAP/Mobile) with updated interactions & content

Raised Rs. 30 million through fundraising efforts for 3 partner NGOs working to empower women across India

Outcome & Impact

Red Rickshaw Revolution found huge social media coverage. It earned a massive fan following on all social media channels
Red Rickshaw Revolution Photo by Taveeshi Sigh & Abner Manzar
Internet Rights

Protecting freedom of information, expression and association on the internet in India since 2011

As part of a global initiative of the Association for Progressive Communications (APC), DEF initiated ‘Internet Rights’ in 2011 to advocate ‘Internet access for all’ at the national level.

As its first step of the project, DEF & APC jointly submitted their first UPR (Universal Periodic Review) in 2011 focusing on Internet rights and making Internet an effective tool to access right to information in India. A second report is now under preparation.

In 2014, DEF, being a country partner, along with APC initiated a project titled, IMPACT (‘Networking for freedom online and offline: protecting freedom of information, expression and association on the Internet in India, Malaysia and Pakistan’ in India). The project aims to build awareness among different stakeholders of the enabling role of in freedoms in strengthening human rights and democracy. The project also monitors and documents Internet human rights defenders tools and support to respond to threats and violations.

The project supports the participation of national rights defenders and civil society advocates in regional, national and global multi-stakeholder Internet governance bodies. Through awareness-raising and capacity-building, the project will reach out to human rights defenders – activists, national rights institutes, media rights advocates, judiciary, legal sector, women’s groups – and civil society in general, and provide them with knowledge, tools and networks so that violations can be monitored, reported and addressed.

www.internetrights.in
Outcome & Impact

3 country research reports published on the State of Internet Freedom in India

5 issue papers published around topics of Freedom of Expression and Cyberspace

150+ data points published in Mint

200+ internet-related human rights violations documented.

250+ human rights defenders trained on Internet Rights Human Rights
Digital Citizen Summit

Creating a platform for dialogue around issues of Internet governance, human rights online and future of the Internet since 2016

Digital Citizen Summit aims to provide a multi-stakeholder platform to discuss issues relating to Internet governance, human rights online and the future of the Internet. Four main thematic areas drive the discussions – Access, Freedom of Expression, Privacy, and Digital Literacy & Empowerment. Policy makers, civil society organisations, private players, academics, government representatives and users are invited to discuss the myriad issues facing the digital world at this annual summit.

Digital Citizen Summit seeks to become the South Asia equivalent to other forums like Internet Governance Forum and APRIGF. Care has been taken that minorities – whether that be gender, sexual, ethnic or people with disabilities are represented on panels and the issues they face are brought to the fore. So far, the summit has seen representations from eight countries — Bangladesh, Philippines, India, Bhutan, Nepal, Sri Lanka, Argentina, and South Africa.

www.dsummit.defindia.org
8 countries
Bangladesh, Philippines, India, Bhutan, Nepal, Sri Lanka, Argentina, and South Africa — have been represented at the summit

60+ speakers and panellists
have shared their ideas with South Asia’s digital citizens

250+ persons
have participated in the summit

30+ women speakers
at the summit have ensured gender equity in the discourse about Internet governance

Outcome & Impact

20 relevant issues
across four thematic areas — Access, Freedom of Expression, Privacy, and Digital Literacy & Empowerment — have been discussed
Mobile for Social & Behavioural Change

Effective usage of mobile as a social and behavioural change-maker since 2013

The rapid growth of mobiles and the Internet have changed the way in which communication and development take place. It is strongly perceived that the subject of mobile as a tool for social and behavioural change is an emerging area among stakeholders in communication for development space. ‘Mobile Phone as a Tool for Social & Behaviour Change’ is a joint effort of UNICEF India and DEF to explore various projects where women, adolescent girls and youth have effectively used mobiles in areas of health, education, sanitation, environment, monitoring and training of frontline workers. Trying to examine the prospects of ‘Mobile Phone as a Tool for Social & Behaviour Change’, DEF and UNICEF India organised a two-day consultation on 9th and 10th May, 2013, in New Delhi. The second part of the project attempted to scale up at a wider level and provide solution-based tools to various ongoing challenges surrounding the issue of women, adolescents, youth, girls, children and sectors across health, education, nutrition, and empowerment. This project attempts to study concerns around MSBC and create a formidable platform to provide knowledge on diverse MSBC implemented projects and help in developing partnerships between state governments and MSBC players. Targeted states are Uttar Pradesh, Madhya Pradesh, Assam, Andhra Pradesh, & Tamil Nadu.

www.msbcindia.org
Outcome & Impact

350+ stakeholders
stakeholders/government/academia/telecom operators and civil society groups have participated in several consultations

100+ case studies
reviewed and compiled in MSBC Caselet Directory

1 Research Report
on “Mobile Phone – A Tool for Social & Behavior Changes, Analytical Report”

5 consultations
with UNICEF state offices conducted in Madhya Pradesh, Uttar Pradesh, Tamil Nadu Andhra Pradesh and Assam

470 participants
participated in 5 consultations

50+ case studies
presented in these consultations
“It is amazing to see all this here. I never expected this far-flung village to be so connected.”

Facebook Founder
Mark Zuckerberg
while visiting CIRC Chandauli in Rajasthan
Buildings are decorated by women and men in the tribal village of Bhanwargarh, Baran, Rajasthan. Photo – Andrew Garton
Redefining stereotypes & literacy in rural India

Andrew Garton
Dense, chaotic thickets of electricity and phone cabling slung perilously over rusted scaffolding, window frames and round fragile bamboo poles. An overhead canopy woven throughout the urban fringe of Phnom Penh, Ho Chin Minh City, Hanoi, Manila, Jakarta, Beijing, Nanjing and Guangzhou. In the dark, amid the unruly mess ragged and shadowy people would emerge from the rubble and garbage, risking their scant lives draping raw cables one over the other - an illegal maze of brazen off-grid grids, syphoning power to light their meagre dwellings.

It was 1994. I had a Macintosh PowerBook 160, a Zyxel 14000 baud rate modem, a Sony Hi-8 video camera, fine tipped pens and a journal slung over my shoulder. I also carried a small tool kit and cables to literally hard wire modems into hotel room telephone sockets. In most cases, it was the only way to get a line out. At that time you were only online for as long as it took to place a call to whichever server you had an account on, to make that modem connection happen, and whatever time remained to send pre-drafted emails and download any that were waiting for you. In my case, I was making an international call to the Pactok server in Sydney. Pactok, a store-and-forward email service, collected all my Australian and international messages, mailing lists and posts to and from specialised self-published, open news groups. You had to be frugal, quick and efficient.

I travelled with Jagdish Parikh, legendary exponent of computer networking for workers’ lobbyist groups in South and Southeast Asia. We were researching the Indo-China and Southeast Asia component of the first study of ICT use in the region. Commissioned by the International Development and Research Centre (IDRC), the consultancy also required us to introduce the fledgling World Wide Web to universities, governments and telecommunications providers, to gauge their interest and possible uptake. The end result was the landmark PAN Asia Report.

Twenty-two years later I find myself in rural India. You would expect such canopies of raw data and electricity cables in abundance here, but they barely exist. Where such an entanglement would thrive is instead progressively drawn by invisible weaves of unlicensed wireless communications, broadband Internet and clusters of licensed spectrum that host today’s digital telephony. Book-ending the PAN Asia Report of sorts I find myself writing and directing a film with the Digital Empowerment Foundation (DEF). It is about the impact these technologies are making on communities where one is only considered literate if you can write your name, where local and traditional knowledge is undervalued and where ancient prejudices continue to undermine the lives of women, farmers and people of tribal or lower caste origins.

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1. BPactok was a low-cost electronic mail network founded in 1991 serving community groups and non-government organisations working in and / or based in the Pacific Islands and Southeast Asia. It operated custom built store-and-forward software for both Pactok hubs and nodes. Nodes would dial hubs which would in-turn dial the Pactok server in Sydney, which would in turn make a UUCP connection to Pegasus Networks further up the Australian east coast. Pegasus would then transfer all international messages from Pactok to and from its partner APC (Association for Progressive Communications) networks world-wide. Much of the Pactok network was automated with calls placed at scheduled intervals. An article published in 1996 described Pactok as looking “for ways to explore cyberspace’s promise of publishing without a printing press with little more than a computer and a phone line” (Fogg, 1996). The last Pactok hub, Pacific Media Watch based in Fiji, was closed in 1998.

2.  The IDRC is a Canadian based aid and development agency. The PAN Asia Network Report was commissioned by their Singapore office.

I am still carrying a laptop, video camera, fine tipped pens and a journal. I am also carrying a smart phone, which I use as a wireless hub and a tablet for my e-books, music and some research. No more need for hard-wired jacking into cable infrastructure. Just enough coins for pre-paid broadband. “Times”, as Bob Dylan famously sang, “they are-a-changing” for the people of rural India as they have done for me.

This is a personal observation of the diversity of DEF’s vision and practice; far-reaching and reflexive initiatives focused through the lens of digital exclusion within the information divide and the work the foundation does to reach the unreachable. It is a movement to ensure the people’s right to access the Internet and the right to know how to share their stories and knowledge there.

4 The Times They Are A-Changin, Dylan, Bob. Released 1964 on Columbia Records.

The Information Divide

It was at the 11th face-to-face Association for Progressive Communications (APC) Council meeting that I met Osama Manzar. Held on Panglao Island in the Philippines, it was less than a fortnight since the 2011 tsunami devastated Japan’s East coast. Many of us were still uneasy about the consequences of the tragedy. Amid the concern one face stood out. Osama was setting up a small stall of sarees and other fabrics from Chanderiyaan, one of DEF’s many projects. DEF was at that time new to APC. We were to find we had much in common, much to share and learn from each other.

DEF, Osama explained, is an organisation dedicated to bridging the information divide in India.

Osama explained that India was not lacking in information richness, only the means to share it. That such an ancient culture with so many people, with such historical significance was not yet able to disseminate its information to the world, India was creating its own information divide, both internally and externally.

5 The Association for Progressive Communications is an international network of organizations that was founded in 1990 to provide communication infrastructure, including Internet-based applications, to groups and individuals who work for peace, human rights, protection of the environment, and sustainability. Pioneering the use of ICTs for civil society, especially in developing countries, APC were often the first providers of Internet in their member countries. http://www.apc.org/
Until it has the where-with-all to do so, Osama continued, how could it expect to contribute to our planet, to perhaps influence the governance and take care of it in ways that could be fruitful to all?

In January 2015, I arrived in India and would see the information divide and the consequences of it for myself, visiting rural regions where vast populations live within meagre means and with few aspirations other than surviving from one harvest season to the next. It is near incomprehensible to come to grips with the fact that over a quarter of the population, a controversial figure at best, still lives below the poverty line. According to official figures, 21.9% of Indians are subject to below poverty line status, however rice subsidies via a national food security scheme are made to support a massive 67%, figures that may raise the poverty line presently under review.

Either way there are millions of people with little or no access to education with few means to know their own rights let alone their own country. Community radio stations, which would otherwise reach many of these people, struggle to access licenses and where there is no electricity, no one has had the foresight to provide telephony let alone Internet access.

Having grown up in the small and once remote village of Islampur in the West Champaran district of the state of Bihar, Osama recognised both the information divide and the opportunity it presented; very few had access to everything. Osama established the Foundation to reach the unreachable many.

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The Foundation’s plan is to use whatever creative, strategic and entrepreneurial means available to encourage, stimulate and mobilise a billion people to become digitally literate by 2020. That’s one billion people presently considered illiterate, one billion unaware of their rights and least of all their right to know that they indeed have rights, a billion people to reach. Being digitally literate does not mean one needs a computer and Internet connection in your home, but the means to know how to make use of the Internet, where to access it from. It’s quite a vision.

Broadband to the Information Divide

Over three months, my film crew and I visited over 20 locations in Rajasthan, Madhya Pradesh, Bihar, Uttarakhand and the National Capital of Delhi. We returned with over one hundred interviews — visiting, analysing, filming and experiencing the core of the Foundation’s multi-layered programme activities, collaborations and their impact. This includes:

- The vast wireless broadband networks making use of unlicensed spectrum in off-grid villages;
- Information resource centres and kiosks shaped to local needs providing free to low cost access to computers, tablets, the Internet, online banking, digital literacy courses and a myriad of services one can only know about by visiting each and every one;
- Designing labour market information hubs that serve to provide communities with access to government schemes they are eligible for;
- Collaborating with aspirant community radio broadcasters;
- And providing the tools and expertise to capture, archive and publish traditional folk music, arts and cultural practices.

There are very few organisations I have encountered with such a vast and diverse range of programmes. The closest would be South Korea’s Jinbonet and Brazil’s first Internet provider iBase with whom I worked at the very first United Nations Conference on Environment and Development in 1992. iBase may not have had resource hubs scattered across the country but their in-house capacities were as diverse as they were exotic to a young man with a laptop, a 35mm still camera and a fistful of poetry from Australia. iBase’s ebullient staff would configure UNIX servers in the morning, dine in their in-house kitchen for lunch and play music in their courtyard in the evening whilst drinking a seemingly never-ending pour of sweet and stout drams of black coffee throughout the day. Staff had unlimited access to an in-house research library and child-minding facilities that enlivened the compound. They produced videos, moni
stored the condition of slum dwellers, kept a sobering tally of the number of street kids who were being bumped off by paid vigilantes and provided modern accessible information to environment, health and human rights workers. Where no telephones existed, they hauled their information services door to door, reaching out to people living on the margins in all their myriad forms.

Twenty-five years later, the quality and range of ICTs have advanced and by and large become cheaper. However, the needs of the many remain and so do the means to address them. If this were a screenplay, it would at this dramatic plot point that DEF would be cued to step in and up. They did just that 15 years ago.

Wireless for communities and information resource centres

In Rajasthan, an ambitious network of community built and owned communication towers have delivered wireless broadband into villages that have barely heard a radio. I found this incredible. The first tower in the Wireless for Communities (W4C) project run out of the Sankalp Sansthan, an organisation based in the village of Mamoni, was erected in the village of Bhanwargarh located in Baran, Rajasthan, and literally built out of junk. Collected on the back of a trailer by Sankalp Co-founder Motilal, as he drove from village to village looking for scrap metal and piping, the final nine-metre construction was welded and erected by villagers with no engineering expertise.

The junk tower, which I might add is not without character, was erected in 2011. It transmits wireless broadband to a network of similar towers 35 kilometres apart reaching up to 10 villages comprising mostly Sahariyas and Bheels, tribal communities at the low end of the caste food chain. So low in fact that the Sahariyas, formerly forest dwellers, are little seen, little known and many still entrapped in an illegal bonded labour scheme that keeps them poor, impoverished and removed from their traditional lands. Thanks to the tireless work of Motilal and his Sankalp Sansthan the Sahariya villagers of Mamoni are no longer bound to the bonded labour market.

Housed at each site in the Baran network is one of DEF's Community Information Resource Centres (CIRC). Each is equipped with computers, software, various media tools, activities unique to the needs of each location and trainers drawn from the villages. But that's not all. The Sankalp and DEF W4C network can function independent of the Internet. Much like the computer networked bulletin boards of the 1980s, though now with an Internet protocol backbone, this network miraculously supports functional video conferencing and a tele-medicine service. You could have your blood-pressure checked remotely, for example! I've never seen a wireless network, let alone a community built one quite like it.

The will to make such projects work is impressive. No one thing is an obstacle, simply one more thing to overcome. It reminded me of an early mantra of one of the community media arts organisations I had set up in the 1990s, “If you can, you must!”

We watched a video conferencing session in action. Three locations logged in. No lag. No adds. Just kids from each of the wireless connected villages who check in on each other at least once a day, and they are doing so without any pre-determined agenda set by either Sankalp, DEF or their staff on the ground there. These kids seem to be getting to know each other irrespective of tribal and/or caste origins. In fact, caste prejudice among these burgeoning cyberspace travellers has all but eroded. One CIRC tutor in the village of Bakanpura, Baran, pointed to an earth-
en-ware water pot from which every single student drinks. While their parents are unlikely to be found in the same room together, their children are growing up devoid of the prejudices that inhibited inter-caste relationships in countless past generations. These are small steps in a vast country of complex origins.

That these networks exist at all, that these towers were built and erected in spite of considerable technical challenges and bureaucratic hurdles is testimony to an organisation that sees opportunity at the very juncture of need, that has the ability to work with people unbridled by constraints, that see a challenge, as Motilal was to tell me, as a joy.

But it is clearly not just about the technology. It is a story about people at the base of each tower, an ongoing story of how they respond to local needs and what each individual there has to teach and what they learn from, for example, the Sahariya’s too. It’s about the literacy in illiteracy; that in each person who is unable to read or write are traditions and knowledge shared and known when the means to read or write were unknown or not required.

The DEF has collected vast statistics in Baran and other similar regions. The numbers are impressive. By all accounts, women and children are the greatest beneficiaries. Former trainees are becoming trainers, earning a living from the CIRCs many are now dedicated to and expressing disinterest in the uncertainty in urban migration. Access to legal information and support networks is eroding the practice of bonded labour. The right to know that one has rights is impacting across the network. Tutors are themselves innovating, adapting new technologies, such as tablets and specialised apps, to aid in teaching English and enhancing cognitive skills by way of simple drawing packages. The work being done amid the invisible currents of data is epic!

1 Wireless for Communities – a casebook. Digital Empowerment Foundation, 2013

I was told over and over that people are finding and making use of “information”. But what kind of information are they looking for and how are they putting it to use? If you give people, who have never seen a television nor barely heard a radio, access to broadband and a few desktop skills, what happens next?

The ripple effect

Frankly, the ripple effects of these towers and CIRCs are hard to track. They cannot be logged in a spreadsheet nor dot-pointed in a PowerPoint presentation. They need to be experienced and to experience one must not count, one must observe and in doing so I have been surprised, astounded and inspired. I wanted to know how do such people respond to instant access to the zillions of terabytes of information accessible to them? What do they want to know, what is meaningful to them and what do they share back with their families and friends? Will they become distracted by Facebook, Twitter, WhatsApp and the rest?

It is not a one-size-fits-all kind of an answer. The initial impacts are, well, kind of ordinary, but one thing is clear: When the computers are switched off barely anyone I met in any of these centres takes the Internet home with them. What they do is share the information they have found. They form self-help groups and talk to each other. Some will go door
to door. Gradually, CIRCs transform into meeting places and local hubs of information drawn off the net and shared by voice. A surprising example, which we would have missed entirely had our shoot not gone overtime, the CIRC in Mansoorpur, located in Vaishali in the auspicious state of Bihar, projects DEF videos and documentaries onto the exterior wall of their building from 6 – 8 pm, every night of the week, attracting often hundreds of passers-by.

As the first video attracted numerous passers-by, a lone government health worker administered polio vaccinations to every child that came his way, checking, of course, for tell-tale markings should they have been vaccinated already. I stood on the deck over-looking the main street, filming the growing crowd entirely oblivious to the horrendous roar of traffic thrusting its way through the throng, and as night fell, the pall of dust and fumes crafted weirdly seductive and irregular shards of mute light as shadow bicycles and ox carts emerged and disappeared through the fog. This is truly taking the Net to the streets. Information doesn’t need to be read, it can be seen and heard by people who may not yet know, or may never learn to read or write.

Questions of the young

When talking to young people I’d ask what they did when online. More often than not people responded with “Google”. They are all, pretty much, asking questions. Boys in Alwar wanted to know what Dehli looks like, or how to set up a bank account to make online purchases, what’s new in the world of cricket and what are their favourite cricketers up to? Girls in Baran were looking for fashion and make-up tips as well as information on women’s health that they would share with other women in their villages. One young woman in Tilonia, community broadcaster Aarti, had learnt how to install and operate Linux as well as a host of audio production tools, all via YouTube. She achieved such self-learning without knowing a single word of English. In a way learning by watching was little different to how young people are taught traditional skills. They learn by rote, by doing the same thing over and over. Gradually, you get to know what an equaliser does and know how to pronounce it.

The W4C project in Guna fostered a CIRC in Haripur village that was so popular among young women there that some were secretly jumping over brick walls, escaping the prying eyes of fathers and other
male relatives, to get to the centre. They were learning basic digital literacy skills on a single computer from two sisters who had themselves gained such confidence that one even became the first woman in Haripur to ever ride a motor-bike.

Peel back the proverbial layers, step a few metres beyond any of these CIRCs, irrespective of the wireless towers that had brought them there, and one finds that the drop, as Rumi so eloquently depicted, is indeed an ocean. But you must make the time to swim in it to truly know what is taking place there, to follow the ripples up and down stream, to arrive at the conflux of modernity interwoven with tradition and complex cultural practices.

**Bridging the Divide — A National Emergency!**

It’s one thing providing a space filled with computers, it’s another knowing what kind of information is needed for the millions that have no idea they are, for example, the beneficiaries of government support, from pensions to labour market information, agricultural and hourly weather updates; a vast store of data updated daily that they have the right to know about.

DEF responds to the vast disparities in the information divide with the same urgency as one would a national emergency. It has this well-honed reflexive capability to harness skills, equipment and the methodologies to roll out projects that bring people and the information they need together quickly in regions where the infrastructure to do so is lacking. The lack of anything does not appear to be a hindrance. Overcoming them seems to make the projects stronger, resilient and the people who drive them ever more creative.

One such response is a relatively new service that will deliver to millions of people living below the poverty line and give them access to labour market information and over two thousand or so government schemes designed for them. The first of these hubs, barely five months old at the time of writing, has yielded outcomes no one could have predicted.

Soochna Seva, literally information service in English, registered 20,078 users in the first three months of its inauguration late 2014. Some 70,000 individuals have already signed up for public schemes under which they are entitled to benefits from. With office spaces barely set up, this fledgling project has, for example, informed legitimate beneficiaries of retirement pensions that many living in India’s far flung rural districts had no idea they were entitled to.

But how do the unreachable, the uninformed and remotely located get to know about such services? DEF goes to where they are and tells them. The Foundation doesn’t wait to build layers of administration around their projects, they simply get in. They take the leanest of equipment — generally a loud-hailer and a local spokesperson — and organise public meetings. I attended two in Bihar.

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2. These figures were provided by Soochna Seva staff as updates to the statistics drafted in this initial report, Soochna Seva Journey, http://defindia.org/soochna-seva-journey/
Getting to know Soochna Seva

in Balthar

It was an early start at Balthar, a mere 6 kilometres from the Indo-Nepalese border. A suburb at the near edge of the city of Bettiah, famous for hosting Mahatma Gandhi’s earliest forays into non-violent protest, is located in the West Champaran district of Bihar. Members of the public had been invited to a face-to-face open-air introduction to Soochna Seva. A van with a small public address system would drive through the back-streets blasting out details of the meeting, almost certainly at the highest volume possible, targeting a specific demographic. Local identity, activist and musician Rameshwar Prasad led the gathering. In dramatic oratory style, he pitched the project, informed them of the benefits they are eligible to claim, guiding Soochna Seva staff to register names as potential beneficiaries. Many of the men, and rightly so, claimed they’d heard such promises before with nothing to show for them. Was Soochna Seva another in a legion of promises undelivered, promises broken?

What worked for the meeting was a combination of getting the message out by way of drivable speakers and live announcements, trusted locals to tell the story in a manner people were generally comfortable with and a strategic alignment with the mayor to give the whole project legitimacy. The approach for the next two public meetings was slightly different, as was the audience.

Getting to know Soochna Seva

in Personi

It was a long drive to Personi, the bulk of it on roads fit for ox carts. Passing sugarcane fields we did indeed encounter ox carts, dozens of them, loaded with cane, steadily hauled to a vast refinery barking smoke from its factory complex into a near pristine sky.

It was around 3pm when we arrived. It looked like it might rain. The small building housed a fledgling Soochna Seva hub, its meeting room full to the brim with as many women as it could hold. I counted thirty-two. I’m not sure why no men were present. Perhaps women did all the work in Personi. It wouldn’t be a surprise if that were the case. Where there’s work to be done in rural India you’ll find women there, from dawn till dusk.

Actually the only men present were outside or those who thrust their mobile phones between my arms, taking photos as I held high the boom.

The opening of the meeting was marked by a most auspicious event. Just as the musicians were about to
start, the building was struck by lightning. I saw a ball of light, arriving at the rapid end of a bolt of lightning from the sky, explode about two metres in front of me. It was immediately followed by a clap of thunder that should’ve split the building - it was so loud. It didn’t. My cameraman, Rohit’s legs were numb though and the fuse to the building’s lights blew. Remarkably no one was actually struck!

With barely a pause the musicians began, performing three rousing tunes to a glum, perhaps exhausted audience. As soon as they had finished, packed up and stepped out of the room, Rameshwar began. This time he was even more animated, drawing curious comments, occasionally smiles from the women. I was impressed with his ability to adapt the presentation and to respond to their concerns, and there were plenty, affording each woman dignity and praise. Curiously, in spite of not being able to read nor write, everyone received a Soochna Seva brochure. I asked one fellow outside, who I had noticed intensely reviewing his copy, what he thought of the service and would he sign up? “I don’t know,” he said., “I can’t read.”

The Personi hub is staffed by two young women. I interviewed Komal Kumari, a lightly framed and yet feisty, determined 19 year old who has already gained respect and praise for her work there. Answering every one of my questions without pause for thought, she described the five-year programme laid out for Soochna Seva in Personi and how it needs to remain open for business for as long as feasible. In a few short years, she has literally run out of town men who had exploited her fellow villagers, charging for individual job cards that should be provided free to every person living and working below the poverty line.

Komal is another example of a young person, one of the many determined, committed at the helm of many such projects DEF has created. Adaptive, reflexive and responsive. That seems to be the model. It’s leg work and there’s a lot more of it to come. DEF have so many people, partners and associates on the ground feverishly dedicated and committed to their communities, their students, their projects. It would appear the many oceans, and again I refer to Rumi, within each and every drop are, by and large, in sound hands.

**The Unheard that Won’t Go Unseen**

**An urbanite transforms in Mamoni**

Former urbanite Kapil Jain had a major life overhaul when he met Motilal, a significant inspiration in his life, who encouraged him to join him in Mamoni. He shaved his head, up and left his cosy life. He now lives and teaches at Sankalp organization’s school and DEF’s CIRC.

Kapil told me his students do not arrive at his classes with open, empty minds. They bring with them traditional knowledge, much of it of forests that no longer exist, that from time to time they share with him. They can, he described, differentiate between trees that may look exactly the same simply by throwing a rock at a clump of leaves and observing whether the leaves bounce back or drop to the ground. They know what plants can feed or heal them as well as the stories
that former generations would share beneath the dense canopy.

Kapil explained that he offers, rather than teaches forms of knowledge that add to the richness they already possess. In doing so he has introduced a suite of Android OS tablets into the CIRC on which text to speech applications are used to enhance English language lessons. By respecting the knowledge these children bring to school and providing an education they choose to embrace, from what I have observed, impart in them an agility and preparedness to contribute to society at large, rather than be obsessed by the trappings of modernity.

DEF and their partners such as Sankalp are enabling spaces for so many people to grow, to know themselves and their communities by, to listen and to be heard, to discover confidence where inner-strength had no other means to flourish. The results are indeed myriad and ongoing.

Basanti and Reena escape child marriage in Baran

In the once lush forests of Baran, in the southern region of Rajasthan, Basanti Bheel and Reena Sahariya tell me why the Internet is so useful. “It’s great for fashion tips,” and burst out laughing. “Aloe vera is good for the skin!”

Now both in their late teens/early twenties, it is incomprehensible to think that only a handful of years ago they were too frightened to speak. Both had attended a course at the Sankalp CIRC where they learned how to use computers and the Internet. They now teach there.

At a place where barely a radio has been heard, Basanti and Reena’s communities of former forest dwellers have access to video conferencing, tele-medicine services, video on demand, email and more. Name it and they have it. Though they may adore aloe vera as any woman of their age might, both have high hopes for themselves and their communities. Basanti has already gathered around 500 women in her village with whom she shares information about women’s health issues, sanitation, general access to the Internet and, no doubt, fashion tips.

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Android is a mobile operating system (OS) based on the Linux kernel and currently developed by Google. With a user interface based on direct manipulation, Android is designed primarily for touchscreen mobile devices such as smartphones and tablet computers. Wikipedia, http://goo.gl/Gst4
Though child marriage is still rife in Rajasthan, Basanti and Reena found that even a meagre education ensured their escape from this practice. Both their families and friends are supportive of their new-found strength and commitment to help women.

Sanjay Sahni is an electrician. He works 10 days a month in New Delhi and spends the rest among agricultural communities of Muzaffarpur. Within a dirt floor, stone and brick farm building, Sanjay fires up a laptop DEF had provided him with, a single Internet connection and loads up a government website. Every day for the rest of each month, he will provide women such as Indu, who stream in from off the fields all day, with labour market information; hours worked, how much they ought to have earned and what to do if employers rip them off. Plenty of them do.

Many of these women are much worse off than Indu. Their husbands are abusive, refuse to work, spend much of their days drunk, stoned or both. In spite of the harsh circumstances, the women of Muzaffarpur are finding strength and solidarity directly as a consequence of knowing their labour rights.

Led by the formidable Madina Begum, they have formed themselves into an organisation, the Samaj Parivartan Shakti Sansthan (SPSS). They cry “solidarity” when talking about their strengths and when called upon will, as a group, humiliate husbands when their behaviour is abusive and entirely unacceptable. They have come to protect each other.

A job card that every below the poverty line worker is entitled to and a single Net connection has seeded a movement among the women of Muzaffarpur, informed and emboldened them. Sanjay had been invited to establish a CIRC there, but declined the offer, focusing his efforts on a single strand of information and supporting its numerous outcomes. Two days before we arrived, Sanjay and some women from SPSS filed a police report against an employer they alleged had underpaid SPSS members. By comparing job cards against data lodged by the employer with the government, it was clear the women were earning far less than they were due. It is all this that the outstanding gentleman is prepared to do.

It is women such as Indu, Madina, Basanti and Reena who are changing the perception of women in their villages. Small steps in a vast country.
Ancient looms and social enterprise in Chanderi

Chanderiyaan, otherwise known as an Integrated Cluster of Chanderi Weavers, is housed in an ancient palace and former bathhouse, Raj Mahal – one of many such impressive stone buildings found in Chanderi, a little known town steeped in antiquity, located in Ashoknagar district of the state of Madhya Pradesh. In former times, Chanderi’s magnificent forts protected the southern regions of India from the invading armies of the far north. It is still abundant with fertile agricultural lands, fresh water and the produce of 3,500 weavers.

When I first met Osama and he described the ancient skills of the weavers of Chanderi, I was enthralled by his description of a legion of weavers introduced to basic computer applications and how this grew into a successful social enterprise providing a means for weavers to value their own labour, subsequently improving the lives of their families.

In travelling to Chanderi, passing fully naked Jain worshippers walking insufferable distances to reach their holy monuments there, I would find the sound of looms somehow comforting knowing that every movement was born of physical, if repetitive, motion without even so much as a fossil fuelled spindle found in the finely engineered maze of timber and twine there.

The weavers of Chanderi have been emboldened by new technologies, access to information and the means to protect both their heritage and historical enterprise. Traditionally, these craftsmen are at the behest of Master Weavers, resellers of their labour. Chanderiyaan began with the creation of a centre for design where participating weavers would work up their own designs, some based on the exotic stone carvings found throughout Chanderi. This included computer-controlled lathes that turn out wooden stencils and punch cards that resemble piano rolls, and complex patterns printed out on grid paper that can be re-cast over intricate looms.
DEF followed up with the installation of the first wireless network in Chanderi, a broadband fee-for-service utility for townsfolk and an e-Commerce website so that Chanderiyaan weavers may reach national and global markets. The entire operation was initially underpinned by local self-help groups formed to reach out to weavers across Chanderi, inviting their participation in Chanderiyaan. All this in a town that until 2009 had no motorised transport competing for space on their tiny streets and lane-ways.

In 2010, motor scooters began to scream past the elderly that sat in Chanderi’s doorways, like their ancestors would for centuries. Now, cars squeeze through barely making it. Ours, loaded with crew and gear, had to backtrack twice when faced with impossible routes to the bemusement of onlookers.

The process of outreach to the broader community of weavers in Chanderi is ongoing. While many are benefiting from the changes that have given Chanderi the status of being one of the first “smart cities” in India, others are still finding their way in the slums at the rear of the city.

We found two young women here, both weavers. Their room, a rooftop dwelling upon a house built on skyward-reaching floors, was part of a labyrinth of rooms supporting 120 people. These women live with two looms facing each other, sharing this space with another 10 women and children who sleep, eat...
and live here. With barely enough room for their looms, they work day in and day out, seemingly content knowing they often earned less than they were due.

They know little of the world below. Razia and Nasreen described not knowing what to do had they to fend for themselves. If they had to go to nearby markets, they explained, they would not know where to find anything let alone know how to purchase the goods they may need. They feared leaving their room. They told us they did not know about Chanderiyaan but they knew that the Master Weaver they worked for was not entirely honest either. They preferred the certainty of a smaller monthly income than the uncertainty of going out on their own.

Radio love in Mansoorpur

In a village at the rear of the small town of Mansoorpur, located in Vaishali also in the state of Bihar, is the home of Raghav Mahto and his wife Kiran Kumari. Kiran received an education that took her to university. Raghav is self-taught and by and large, considered illiterate. Together they are a formidable couple. Raghav, a quietly spoken man, used to build and repair radios, eventually working out how to amplify the signal of a wireless microphone so as to broadcast music within a 15km radius throughout his home village.

In the heyday of Raghav’s self-made radio station 15,000 were tuned into his morning broadcasts, very
popular among the women in Mansoormapur. Kiran explained that the local music her husband would play connected the women to each other and gave them something to listen to that was of their culture as they churned through their daily chores.

His self-made radios would sell during festivals such as Holi, often a thousand at a time. He had both the skills to build the means of transmission, host and produce content, and to build and distribute the means to receive his broadcasts. It was a micro-media empire! I asked if he had any idea how many radios he had made? He smiled. “Uncountable…”

Sadly his broadcasting career was short-lived. The government shut him down with threat of fines. Raghav is so humble he described his operation as robbing the government of a broadcasting license fee.
Kiran, discouraged from marrying him, was committed to spending her life, as she explained, with a man who had the energy and capacity to teach himself rather than someone who had no respect for her education. Their relationship, she said, would always be interesting and there would be much they could do together. She dreams of setting up a licensed community radio station and a centre for learning, teaching both digital literacy and solar engineering.

So far their partnership has yielded a popular, yet modest CIRC in Mansoorpur. With DEF’s support they now conduct daily digital literacy classes for both the young and elderly. Even members of the local Panchayat take lessons at the Centre, but do so after hours. Kiran tells me they don't want the youth to see how illiterate they are! The CIRC supports itself through modest fees both from courses and user pays broadband wireless.

Kiran dreams of the day that Raghav will play local music on the airwaves again, when once more women will be united through music and their chores become less demanding, when their ramshackle training and cultural centre matches what the best institutions such as Tilonia’s Barefoot College can provide, when their community prospers from their marriage and love of radio.

1 Barefoot College is a DEF partner based in Tilonia, Rajasthan http://www.barefootcollege.org/

Beneath centuries of prejudice and indifference are vast stores of knowledge embedded in dying languages, folklore, arts and cultural practices little known to many Indians themselves. This is the literacy that exists within the so-called illiterate.

Poured into servers located who knows where are terabytes of information updated daily if not hourly, ready for the millions of off-grid communities yet to know of its availability. Countless have yet no idea that theirs is a right to know how to access that information, the skill to discern what is meaningful for them and how they may publish their own.

That both traditional literacy and contemporary information literacy find common ground online, one to share and the other to be serviced, is core, to my understanding of DEF’s vision. What happens when such streams merge remains to be seen; however a glimpse of what I may deliver can be observed in the young.

You need only look at India’s rural young, a generation that has not found comfort in materialism, certainly not enough to be distracted by it, to recognise they need all the support and encouragement we can afford.

A generation of young women like Baran’s Reena and Basanti and Guna’s aspirant wireless technicians attend weekend workshops under a broadband wireless tower; young boys barely in their teens like Chandauli’s Saharun Khan encourages his friends to join him at the local CIRC; and Guna’s Amit Yadav, yet to breach 10

Reaching Out from the Divide

Raghav’s home made radio station with hand-held transmitter. Photo – Still from Ocean in a Drop. Camera - Rohit Dhall

148
years, names every single part of a computer in a language no one in his village can speak.

This is a generation inspiring change in their villages, overcoming poverty and prejudice from the youth up. These are young people increasingly more confident and able to make their own decisions. They are the voices to listen out for as they reach beyond the coal face of the information divide knowing that theirs truly is a right to know – to know they have been gifted with intuitive tools, the foundations of culture and tradition and they will have our support to change the world, so that we may uplift each other together from the misdeeds and follies of the past and the present.

Epilogue – Precipitation

The Foundation’s reach has found people that have made use of theatre, puppetry, mobile public address systems, graffiti and music. I have met all of these people, but I will never truly know the cultural complexities at play within them, what makes them so adept at communicating to their Indian brothers and sisters with such profound gestures and yet remain entirely indifferent to others. I would often then find myself in a quandary, perplexed and confused, like standing at the edge of a cliff feeling the pull to fall and yet having the common sense not to, and yet the pull remains.

At such times my thoughts would reflect on indifference and what it is I came to India to do, to make a film.

Indifference in difference

Just as there was a flourishing of flowers that brought colour and shape of all manner throughout the forests of planet Earth, so was there a burst of humans reflecting the diverse landscapes and climates across the great continents, grand brush strokes of language, song and dance, creed and shade, all speaking to their lands and their lands through them. Nowhere much more so than in India where diversity is of a scale only comparable to the densest of rain forests where we still remain uncertain of the depth of species, flora and fauna, that we have yet to know and learn from.
Between Alwar and Baran (Rajasthan, India) we passed a forest from which trees emerged, penetrating the early morning mist as broken arms clutching at the air, a landscape rent and torn by illegal sand-mining. Three camel drawn carts were loaded up with sand quarried by hand. We stopped to shoot this enterprise and in doing so sought permission from the villagers there. They agreed, for a small fee and we obliged.

When the villagers were done we moved deeper into the forest to capture material for my serene, reflective cutaways. Each of us found a zone of our own, documenting what we saw there either on camera or through personal reflection. I sought to walk and look deep into the mist. It was at such a moment that a shepherd emerged. His crook as tall as a small tree. We spoke through hand signs and gestures.

We were both curious about each other. Clearly I wasn’t someone he would regularly meet there, an alien on his homelands, and I certainly wasn’t expecting to chat quietly with a shepherd. We communicated without any sense of indifference.

Communication had been found in silence and respect in mere moments.

However, indifference and disregard were themes that I would find a constant challenge throughout the shoot, described to me as commonplace attitudes found throughout the country. What is commonplace is that there is nothing common between regions, states, tribes, the minutiae of lives buried in slums and the makeshift dwellings nomads and the homeless construct on the open road, in fields, beneath freeways. If there was ever a place more deserving of suspended assumption, it is India.

It’s not so much that people are indifferent to each other, there is a learned system of responses hewn from a culture of many cultures. There is no one India. It cannot be personified in any single artefact nor language. It can’t be drawn, exposed nor compared to anything. There are simply too many variances, too many nuances, too many histories and layered differences.

Indifference is a strategy. I try to be open to everyone, to all experiences, but there is a kind of madness that comes with that. Because one cannot know the layers, one cannot know why people say one thing to someone else and another to you, both statements contradicting each other, but to someone who does know it makes sense – it makes sense that it makes no sense! Try experiencing this a dozen or more times each day for a month.

I say to myself more than anyone else, best see India as a complex country of countless differences where every shadow cast is contoured by the dust of a millennia lives decomposed and transformed into nutrients absorbed into every single tree left standing.
I have come to India to make a film. A non-fiction film. A communal voice if you like, comprising what British film-maker Adam Curtis describes as a series of “complicated, fragmentary and emotional images [that] evoke the chaos of real experience.”

This film is intended as a sensory fusion that brings to the screen those voices moved and mobilised by an organisation taking a bottom-up approach towards an informed and digitally literate society; and communities living on the margins of India’s rural and information divide.

As a non-fiction film, my approach to it is to evoke rather than demand the attention of audiences. I am seeking to emphasise empathy through sensory experience, through images that connect ourselves to each other and by way of carefully articulated sound and motion; to sense the unseen and listen for the unheard.

Additionally, I am creating spaces within this film for audience to take in, to pause and comprehend what is being shared. Danish film-maker Joshua Oppenheimer says, “We can inundate an audience with facts and hopeful possibilities and not dare to let them think and pause and reflect on what they’re seeing.” Or we can immerse them in our stories, letting them sit quietly in them and then make it little easier with beauty and poetic imagery and sound so that our stories can sink in.

The film is intended to be a moment, a moment in which we may take pause to see ourselves in each other, each an ocean in an ocean of drops. It is as much about informing an audience as it is an experience; stories of triumph against innumerable odds via intrigue and curiosity in such a way that we draw and align you with our subject(s), a route to empathy. “Empathy,” Oppenheimer says, “is a practice. A practice ... worth practising.”

But one can never know the true impact of a work, whether it be a film or a billion digitally literate people, by any means at ones disposal. As the internationally respected director of some 61 films, Werner Herzog reminds us “… art doesn’t make a difference till it does”. Let the work begin!

A Taiwanese Canadian, who interned with DEF two years ago, has recently returned to work for DEF. She travelled with the film crew who were making a documentary on the works of DEF. Without knowing their local languages, she listened and interacted empathetically to various people who live in remote parts of India. She returned happily with more wisdom. Following is her account.
What do you do when you situate yourself in a place where you have no knowledge of the local language, yet aspire to understand people with empathy? I practice listening.

As people consciously take control of their sensory experiences, they listen rather than hear, says Seth Horowitz in his article ‘The Science and Art of Listening’. This requires heightened concentration. Without a doubt, sight plays a big part in the initial understanding; yet in empathetic listening, one enters a different kind of engagement, a refreshing one. When language is a barrier, one listens more to other aspects of the language: to its tones and its expressions in the environment. For a brief moment, we understand languages in a different manner.

As part of the crew shooting a documentary, Ocean in a Drop, that explores how Digital Empowerment Foundation (DEF) addresses information divide in India’s rural places, I faced the challenge of understanding the words and expressions of those who have recently obtained access to information and have been empowered by the use of technology.

Technology can magnify our ability to perceive information; yet the value of technology’s information lies with the people who operate it. Interestingly, according to James Gleick in his book, ‘The information: a history, a theory, a flood’, information itself has a life of its own. Information is entropy. In this technology-savvy society, information overload is a phenomenon; listening requires more practice. Also, when transmitted through different media, the same information may be interpreted differently. Hence, the more we practice to listen, the more we appreciate, understand, and immerse ourselves in the cultural and contextual meanings of information.

The episodes below describe my auditory experiences in rural Indian villages during the shoot of the documentary. Together with sights and tonal observations, I relate to and rediscover the way villagers appropriate technology to obtain and define their perceived information and integrate it with their values. It is the world of understanding without any conventional notion of language.
Story 1
Barthala Village in West Champaran, Bihar
The community group gathers to sit under a big tree. On the concrete platform, there is a big striped red-and-black carpet for people to sit on. One by one, people enter. They choose a spot on the carpet and they sit.

Rameshwar, an activist who participated in Jaya Prakash Narayan’s anti-corruption JP movement in the 70s, is now a full-time social activist. He works with DEF to support grassroots activities and assist Soochna Seva, a project that informs villagers about various government schemes that may benefit them in various ways. Nowadays, his task is to persuade people to put their faith in him, in the project and sign up for these government schemes. Many villagers in Barthala lack basic access to information. Soochna Seva gives community members access to information and allows room for debate. This is a time they can voice their opinions, issues and problems they have encountered with government schemes in the past.

Rameshwar steps up to the concrete platform. He starts talking.

As he talks, some people on the platform interrupt. The more he talks, the more people gather to dispute. As the conversation prolongs, the villagers’ tones heat up.

Some listen. Some express their dissatisfaction, doubt and anger. Their tones are frustrated.

Rameshwar listens. He listens. Once in a while, he says something, some people hear him, but do not listen. Some people sit quietly under the tree, perhaps doubting, perhaps viewing the heating conversation, perhaps they listen; eventually, Rameshwar’s tones soothe the heated discussion. The conversation continues. People ask questions. Rameshwar answers.

Often, Rameshwar’s voice is drowned out by arguments; yet Rameshwar’s tone is filled, bold and encouraging. Seemingly, it provides hope for people who have lost out on government promises.

After some 40 minutes, people get up, some leave. Some gather in front of a small room, decide to trust and sign up.

Note: The JP movement, led by Jaya Prakash Narayan was a political movement in 1974. The movement started with a fight against the misrule and corruption of the Bihar state government but later became almost a national movement opposing the government of then Prime Minister Indira Gandhi that finally led to the declaration of Emergency, a dark period of authoritarian rule in the world’s largest democracy.
Story 2
Ratnauli village
Muzaffarpur, Bihar
It is a small room. The room has one computer and a bed area where the computer user sits. The room is filled with women villagers. They need to twist their bodies to let one another pass through. They exchange small talk while waiting for the process to start.

The women wait patiently. They listen to each another when someone talks. One by one, women report their names to the computer operator. Each woman waits while the operator finds her name on the screen, and reads out aloud. The woman listens and nods. Sometimes the woman asks a question and the computer operator, Sanjay, explains. The rest of the women softly chat among themselves.

These women are involved in a government scheme, National Rural Employment Guarantee Act (NREGA), which guarantees them 100 days of wage employment a year; however corruption is rampant. Many of them are either overworked or do not receive the full amount of their promised wage. Moreover, majority of them only know how to write their names. Some of them sign with thumb impressions. By reporting their names to Sanjay (who operates the computer), the latter can help them find the information to understand their employment rights. Many of these women come from economically challenged situations. Some of them are the only source of income for their families. Some experience domestic abuse from alcoholic husbands. Some women’s children do not provide support, and some live with husbands in poor health who cannot work. These women listen to each other and they help each other through difficult conditions. Once, they visited the house of a woman who experienced regular physical abuse from the husband. They shamed the husband publicly to force him not to do such things again.

Outside, shoes line up. At the door, more women line up, like overflowing peanuts spread through the bag. The room is simply too full. Tints of sunlight shine through the open-air brick built corridor. Women exchange small conversation with the crowd and wait with the ever so often breeze. They sometime raise their heads and ears to listen to the conversations inside the congested room.

With that single device in the room and the reporting of their names, the women absorb and listen intently to information, which may improve their lives.
Story 3
Mamoni village in
Baran, Rajasthan
Sankalp Foundation
Two groups of children gather: one on each side of the room. It is in a school in Mamoni, Baran. The teacher stays with one group. He says an English word. The children repeat it.

The children in the other group sit in one circle; one little girl has a mobile device in front of her.

The little girl says “in”.
The group repeats “in”.
She says “addition”.
The group repeats “addition”.

The pattern repeats, they listen and they repeat. They take their time in learning each and every word. All of a sudden, they turn to the mobile phone. The little girl punches in ‘j-a-c-k-a-l-s’. The machine says ‘ja-ckal-s’. They all repeat “jackals”. The little girl says: “jungle cats”. The group repeats “jungle cats”.

Mamoni is a tribal community encompassing a huge population of Sahariyas, an indigenous tribal community who are still in the throes of illegal feudal practices such as bonded labour. The community members are low in literacy and often lack access to basic information regarding their rights and entitlements. The children are involved in simple functions from using the ICT device to study English in classes organised by the Sankalp Foundation to receive basic education.

Once in a while, they turn to me and say: “Didi, kya hai?” (elder sister, what is this?). I say very slowly: “cro-co-diles”. They repeat: “cro-co-diles”. We all giggle.

By listening to each pronunciation and tone of the word, they learn English. Their use of mobile technology is simple yet they appreciate its purpose. Everyone gathers to listen to the mobile, the little girls or their teacher. Their attention stays on the diction and tone of the word and they learn.
Story 4
CIRC Centre in
Barbatpura village in Guna,
Madhya Pradesh
On one side of the room is a big open space, on the other is the digital centre where several computers are housed. A group of girls gather at the open space of the room with a man and a projector.

The projector presents technical content. The women listen and they write down notes in their notebooks. Sometimes they speak. Mostly they listen.

A group of women gather for an interview about their involvement in the Guna Community Information Resource Centre (CIRC). One by one they express their excitement and their joy. One wants to be a teacher. She wants to teach digital literacy skills to other children. Another girl wants to teach technical skills to people. They believe this knowledge should be passed on to others, which will benefit many. Their tones reflect the faith and enthusiasm they experienced throughout the training programme.

This CIRC holds the base location for the Wireless for Communities (W4C) programme, an initiative that increases digital literacy and digital access to villagers who often do not have access to information. The women in the centre are either students, housewives or farmers who participate in technical workshops to learn such skills as how to implement wireless connection in rural communities.

In each of the conversations, the explanation is short. They all gather to learn how to build something: the details and connection that are possible with their use of technology. Their encounters with the technology bring them alternatives to their everyday lives. They no longer need to abide by the traditional conceptions of what village women should be. Their tones elicit choices, opportunities and hopes. Somewhere down the line, information and hope penetrate through that projection, through hands-on practicing, and through listening to each other.

The training goes on as they concentrate.
Story 5
CIRC Centre in Barbatpura
village in Guna, Madhya Pradesh
She does not say much. She is silent most of the time. She comes out of the kitchen and watches children, including her son, learn digital literacy skills at the Guna Community Information Resource Centre (CIRC). She makes tea. She observes and listens to her surroundings.

In the kitchen, utilities clink. People walk in and out of the kitchen to fetch water. Some come in to help her with the preparation of food. They roll the dough and flatten the dough. Thump, thump, thump. Sometimes, groups of young gather in the kitchen to chat. The kitchen becomes a little communal hang out area and she is always there. Her hands never stop picking up ingredients. She manages the spices, the dough, the vegetables, and the water.

Meena Sen is the cook who doesn’t participate in the training and doesn’t use ICT tools. But she believes that the CIRC offers different opportunities to children in the village; hence she encourages them to attend the centre.

At first, she had doubts in the approach of the centre. She did not understand the way technology operates. She could not foresee its impact in the community. Slowly, as she observes the transformation around the centre, in the community and in the girls, her doubts gradually diminished. She now comes and makes food. She makes lovely tea in her silence. Yet her silent support fills the hunger and the thirst of the people in the digital centre.
They are Not Passive: They Listen

Technology provides theses rural Indian villagers access to information. They acquire digital literacy under different circumstances. Information overload exists: the challenges, the struggles, the social expectations, the network and the possibilities. Yet their appropriations of technology enable them to understand the information they obtain.

In Guna, many listen to the information in conjunction with the projection and people’s experience. The girls regain their hope of finding another path. The silent tea aunty, although not using the technology in the centre, appreciates information’s transformative values. Although she does not directly understand and benefit from the information, indirectly she recognises its influences, and encourages her son, who is one of the best students at the centre, to attentively learn. These little changes form an understanding on her stance, in her environment and in her new faith.

In Mamoni, children gather together to learn English passages through listening to various sources of sounds. The sound resources provide them enough information to give them a simple connection amid the deep information divide.

The group of women in Ratnauli function with one name and one device, which allow them to monitor the government’s claims. With the information, they ways to accumulate income and improve their livelihood. Moreover, they list they empathise, they share, and they come together to solve problems within the community.

Lastly, through the heated conversations and the patient back-and-forth discussions, villagers in the Soochna Seva discourse learn and absorb information through ing, bickering, doubting and eventually some trusting. The act of sharing cost
governmental information to people who often lack access, lead villagers to have a better grasp of their situations and seek more opportunities. Villagers learn to be more self-dependent. Moreover, they learn to help one another through self-support. Villagers perceive different possibilities and reclaim what is theirs; they gain a vision of equality and redeem a new kind of community value.

Limited language support allows one to utilise and balance the five senses differently. Listening, the most difficult skill in this situation provides confusing yet enriching experiences; something indescribable. Information acquires extra meanings. Listening acts both as a translation gap and information bridge between them and others. It is not a passive act.

Yes, we can hear, but are we listening? The attempt to listen with empathy and a bit of logic allows one to sense stories of sustenance, shove away the false images and assumptions of development and avoid offering unnecessary sympathy to the subjects. If we are listening, we will listen to their voices and listen to their nourishment. They have transformed themselves as the “communities of modellers”. It is a term, according to Colombian-American anthropologist Arturo Escobar, that denotes the acceptance and usage of both local and dominant models as constant transforming conversations, where subjects provide their own definitions and create their social and cultural practices through their self-understandings. Their stories weave through their experiences. Their empathy and courage reflect their understanding and processing of the acquired information, in which they practice to empower each other. They not only speak their voices, but also voice other people’s voices.

They listen to each other.
DEF is an organisation I admire for being ahead of the curve - I thought so when DEF was born and continue to do so even now. DEF has set high standards for collaborations at all levels starting at the grassroots. Celebrating innovations across India as well as across borders is of great value to take the field forward. Wishing DEF all the very best and more work and power to you.

Poonam Muttreja
Executive Director
Population Foundation of India
FINANCIAL OUTLOOK & BALANCE SHEETS
DEF started its decade-and-a-half-long journey with almost no outside funding. Over the years, DEF’s commitment to its work, according to its declared vision and mission and its sincerity and integrity in carrying out this work, has enabled it to attract more and more partners willing to support its programmes, projects and activities. The result has been an almost asymptotic growth in its revenues.

Three phases of growth

An analysis of DEF’s funding pattern shows that there have been three phases in the growth of the organisation (see charts in following pages) and that funds have come primarily from the government, the private sector, national and international institutions, and NGOs or donors.

Initially, from 2003 to 2006, the main funding came from the government – Ministry of Communications and Information Technology and various organisations and companies under it such as Media Lab Asia.

In the second phase from 2006 to 2010, the major funding came from private sector organisations such as Intel, Tata Consultancy Services (TCS), Nokia, and international institutions such as the Public Interest Registry (PIR) and the Internet Society (ISOC) even as government funding continued.

In the third phase, the bulk of the funding has come from international and national institutions such as the Internet Society (ISOC), Public Interest Registry (PIR), Intel Foundation, Ford Foundation, Bill and Melinda Gates Foundation, Vodafone Foundation and Sir Dorabji Tata Trust as also such donor organisations as the European Union, UNESCO and UNICEF even as private sector and government funding continued or expanded with new partners joining the fold. Further, in 2015-2017, DEF entered into various CSR partnerships.

One remarkable aspect of DEF is that it is entirely project funded. It has no corpus funds and none of the organisation’s partners provide any money to be spent generally over three or five years as is often the case with many NGOs. Nor does DEF try to raise funds on the basis of ideas alone. Projects are first implemented with the organisation’s own funds and once there is proof of concept attempts are made to rope in partners for scaling up the proven concept.

As a consequence of this approach, the other important aspect of DEF’s funding is that its work is attracting partners and more funding to enable it to either expand existing projects and programmes or to move from the pilot stage to the full-fledged...
launching of new projects and programmes. For DEF, work does not follow funding but it is the other way around: funding follows its work.

**Challenges thrown up by rapid growth**

The sharp growth in revenues in recent years has thrown up the major challenge of managing the much enhanced resources in a transparent and auditable manner. Over the last few years, DEF has had to considerably strengthen and scale up its financial and accounting systems and skilled human resources to meet the demands of managing the much higher availability of resources in a transparent and accountable way. Today, proper and efficient resource utilisation is as much a challenge to the DEF management as raising of resources, perhaps more so.

**The future outlook**

ICT for development and digital intervention is increasingly gaining priority in the agendas of governments, private industry and civil society organisations.

At the same time, DEF’s work at the ground level has now earned it the respect and admiration of all stakeholders interested in the field of ICTD and digital inclusion. There is now a general recognition of the knowledge base and grassroots network that DEF has acquired over the years with regard to implementing digital intervention projects in remote rural areas and among underserved communities. Few organisations can boast of the kind of knowledge that DEF has acquired with regard to delivery models and business models that work at the grassroots level or its outreach capability based on its network of grassroots organisations.

Consequently, it is only to be expected that in the coming days DEF will be able to attract more partners and more funding for its various projects and activities. DEF’s revenues are, therefore, likely to grow even faster in the near to medium term. Keeping this in mind, DEF is now engaged in working out a strategic plan that will guide its activities and resource, raising and utilisation programmes over the next three to five years when it plans to reach all 272 backward districts of India.
RECEIPT OF FUNDS: YEAR-WISE GROWTH

TOTAL: RS. 68.02 CRORE

(All figures in rupees)
PROGRAMME AREAS: FUND ALLOCATION & IMPACT

TOTAL: Rs. 68,02,24,351

(All figures in rupees)

- Research & Advocacy: Rs. 59,650,735 (28%)
- Access & Infrastructure: Rs. 19,27,99,890 (13%)
- Education & Empowerment: Rs. 86,642,447 (12%)
- Governance & Citizen Services: Rs. 79,235,397 (9%)
- Knowledge Hub & Network: Rs. 138,595,583 (20%)
- Markets & Social Enterprises: Rs. 123,300,299 (18%)
SOURCE OF FUNDS: LIST OF MAJOR CONTRIBUTORS

(All figures in rupees)

58.36%

NGO/Donors/International Institutions Total: 398,029,594

- Twitter 334,100
- Population Foundation of India (PFI) 500,000
- UNESCO 550,000
- Social Work & Research Centre 580,000
- Friedrich Naumann Stiftung Furdie Freiheit (FNF) 38,01,724
- Sri Aurobindo Education Society 1,200,000
- IAMAI 1,272,500
- SWRC 2,000,000
- Intel Foundation 3,289,997
- UNICEF 9,186,440
- Association for Progressive Communications (APC) 8,337,975

- 21,824,725 American Embassy
- 14,950,976 European Commission Directorate
- 15,908,895 Gates Foundation
- 32,781,178 Ford Foundation
- 49,229,000 Jamsetji TATA Trust
- 64,212,275 European Union
- 2,350,000 Centre for Microfinance (CMF)
- 55,274,633 Vodafone Foundation
- 4,458,935 Charities Aid Foundation (CAF)
- 78,561,262 Public Interest Registry
- 20,233,500 Qualcomm Inc.
- 6,620,280 Nasscom Foundation
- 2,686,199 Internet Society
### Government/Semi-Government Institutions

- NABARD: 200,000
- Centre For Development of Advanced Computing (C-DAC): 400,000
- National Institute for Smart Govt.: 560,000
- Mee Seva: 675,000
- Min. of Information & Broadcasting: 760,459
- Dept. Of Science & Technology: 1,100,000
- Gujarat Technology University: 1,200,000
- Min. of Minority Affairs: 2,525,000
- Dept. Of IT & Communications: 3,300,000
- Media Lab Asia: 12,592,657
- Dept. Of IT & Communications: 3,300,000

- National Internet Exchange of India: 13,080,000

Total: 36,393,116

### Private/CSR Funds

- CISCO Systems Pvt.: 500,000
- IL & FS Education & Technology Service Ltd: 580,000
- IMI Mobile Pvt. Ltd: 1,300,000
- One97 Communications Ltd: 1,500,000
- Centre for Micro Finance: 2,000,000
- Nokia India Pvt. Ltd: 3,500,000
- Microsoft Corporation India Pvt. Ltd: 4,714,950
- Intel India: 4,832,707
- Meraki Communications Pvt. Ltd (Google): 6,000,000
- Vodafone Group: 18,583,400
- mPhasis Limited: 25,000
- Ericsson India Pvt. Ltd: 17,247,550
- Google: 87,519,854
- Microsoft: 1,40,66,000
- Microsoft Corporation: 4,714,950
- Intel India: 4,832,707
- Meraki Communications Pvt. Ltd (Google): 6,000,000
- Vodafone Group: 18,583,400
- mPhasis Limited: 25,000
- Ericsson India Pvt. Ltd: 17,247,550
- Google: 87,519,854
- Microsoft: 1,40,66,000
- Microsoft Corporation: 4,714,950
- Intel India: 4,832,707
- Meraki Communications Pvt. Ltd (Google): 6,000,000

Total: 237,610,151

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**TOTAL FUND:**

Rs. 68.02 CRORE
“Osama and DEF have a wide network both in and outside India. They have great ability to connect technology to rural people and have very good understanding of how governments function. So they can give very good inputs on how governments can work with civil society organisations. Moreover, because of their tremendous outreach capability, they can implement projects that others cannot do.”

Dr Ajay Kumar
Former Joint Secretary in the Ministry of Communications and Information Technology
FRIENDS OF DEF

Abhijit Saxena • Abhishek Baxi • Abhishek Kumar • Aditya Gupta • Ajay Kumar • Ajith Madurapperum • Ali Asghar • Amarendra Srivastava • Amina Charania • Amir Ullah Khan • Amita Joseph • Amitabh Singh • Amod Kumar • Amol Goic • Anand Swaminathan • Ananda Raj Khanal • Ananya Raihan • Andrew Garton • Anika Gupta • Anirban Mukerji • Anirban Sarma • Anish Kumar • Anisha Singh • Anja Kovacks • Anjali Kaushik • Ankhi Das • Ankit Vengurlekar • Anshul Goel • Anurag Batra • Anuraj Gambhir • Aparna Mahajan • Anchana Sahay • Arjun Basu • Arun Maira • Aruna Roy • Arvind Rao • Ashish Sanyal • Ashish Garg • Ashok Jhunjhunwala • Ashok Panda • Asif Saleh • Asif Syed • Balendu Shrivastava • Barun Mitra • Beerud Sheth • Bibek Debroy • Bikas Kr. Singh • Bikky Khosla • Bikram Shrestha • Binay Tiwari • Bobby John • Brian Cuth • Bunker Roy • Bunty Patil • C. Babu Joseph • Chaitanya Kalbag • Chat Garcia • Chirag Jain • Chitranganie Mubarak • D K Jain • Daniel Lobo • Dinesh Agrawal • Danish Karokhel • Dave Stewart • Debdas Sen • Debjani Ghosh • Deepak Maheshwari • Deeti Vikas Dutt • Desi S Valli • Dileekha Dias • Dilip T Ittyera • Dinesh T.B • Dr. Govind • Dr Ranganayakulu Bodavala • Dr Reuben Samuel • Dr Subho Ray • Dr. Parveen Pannu • Dr. Basheerhamad • Dr. D.C Misra • Dr. Falguni • Dr. Jatinder Singh • Dr. Rajendra Kumar • Dr. Ronald Meinardus • Dr. Sheetal Amte • Dr. V K Dharmadhiakari • Dushyant • Fayazuddin Ahmad • Forhad Uddin • Francesca Feruglio • Francisco J. Proenzi • Frederick Noronha • G Sahoo • Ganesh Natarajan • Gared Price Jones • Gaurav Chopra • Gautam Chikermane • Gayatri Subramaniam • Gazal Misra • Geeta Goel • Geeta Malhotra • Gopinath Parayil • Graham Minton • Gul Panag • Hareesh Belawadi • Hempal Shrestha • Ibrahim Ahmad • Indrajit Banerjee • Indumini Kodikara • Ingrid Shrinate • J. Shankar • Jamyang Tashi • Jyotika Malhotra • Jaswinder Sandha • Jayalakshmi Chittoor • Jeri Curry • Jonathan Bill • Jyotika Malhotra • Jyotiraditya M Scindia • K. K. Upadhyay • Kapil Gupta • Karan Gambhir • Karuna Nain • Karuna Nain • Kishor Panth • Kishore Balaji • Kumar Anurag Pratap • Kunal Bajaj • Lilya Tyabji • Lalit K Panwar • Laura Turkington • Lekha Kumar • Lochan Lal Amatyia • Lokesh Mehra • Maarten Boterman • Madan Mohan Rao • Madan Padaki • Madhu Singh Sirohi • Madhura Dutta • Madhura M Chatrpathy • Mahabir Pun • Mahesh Uppal • Mahesh Venkateswaran Vee • Mahima Kaul • Malini Gupta • Mansa Chakrabarti • Manish Dalal • Manisha Singh • Manju Dhamsana • Manjula Dissanayake • Manoj Dawane • Manoj Kumar Singh • Mansoor Ahmad • Mathew Cheriyan • Md. Forhad Uddin • Meenakshi Batra • Meera Chaudhary • Meera Shenoy • Meeta Sengupta • Mukul Gupta • Milind Pathak • Moe Chiba • Mohammad Chowdhury • Mosharraf Hossain • Mostafa Zaki Haider • Mouli Raman • Ankit Vengurlekar • Vikas Bagri • Mridula Chandra • Srinath • Mahima Kaul • Munir Hasan • N Ramakrishnan • N Ravi Shanker • Naimur Rahman • Nakul Shenoy • Nandita Rao • Nasr ul Hadi • Natasha Badhwar • Natesh B V • Naveen
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Z News: Social media needs to be more inclusive: Experts

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