Rethinking ICTD - 'Back to the Basics' of Development

Or, are we stuck with mobiles as a poor woman's information society?

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In the late nineties, the blinding force of the Internet's disruptive potential gave birth to a class of business entrepreneurs who thought that the Internet provides a 'completely new way' of doing business and earning money. Within a few years, however, the world witnessed what is known as the dot-com crash. Business in the Internet age was different, but not so different as to be completely unhinged from long-established and respected percepts and theories of business. In the ensuing years, as business used the new information society context to transform itself from within, 'back to the basics' has been an often repeated mantra.

ICTD, on the other hand, still remains stuck with its dot-com equivalent. It never re-examined its early fling with seeking a 'completely new' development practice, which – while underpinned by strong ideological forces and business interests – was built over thin theoretical and evidential base. ICTD today requires the equivalent of a dot-com crash, and its corrective influence. This document attempts to critically examine the dominant approach to ICTD, and proposes an alternative conception that is rooted in traditional development ethics, theory, and practice.

Four central characteristics of the dominant approach to ICTD are:

1. An almost fundamentalist[2] belief in markets and private partnerships,
2. Accent on implementation and practice, with considerable suspicion of policy, other than of the market-enabling varieties.
3. Focus on a 'best practices' rather than a social-analytical approach to knowledge
4. Distance from 'traditional'[3] development activity and actors

[1] There of course is not any one 'dominant ICTD model', with specific details, but a spectrum of them. The term 'dominant ICTD model' therefore is an abstract category attempting to capture the principal elements of much of current ICTD policy and practice.

[2] Market fundamentalism refers to an uncritical faith in markets as providing best outcomes for all people in all situations. The opposite of market fundamentalism is not a lack of faith in markets, but a balanced and critical appraisal of its role in given social contexts, and in its complementarity to the roles of public and community sectors.

[3] 'Traditional' development practice is a tentative formulation in relation to ICTD, which has many new and unique features.

In light of the very unsatisfactory progress on the instrumental objectives of connectivity and access set by the World Summit on the Information Society (WSIS), as well as on its substantive objective of harnessing ICTs towards meeting the Millennium Development Goals (MDGs), it is important to critically examine these basic premises of the dominant approach to ICTD, and employ such an critique to explore alternative approaches.

ICTD and the Markets

ICTs are presented to have a dual and complimenting relationship with markets in dominant ICTD theory: (1) ICTs can significantly extend markets to areas not currently served by markets, and contribute to 'perfecting' markets by removing 'information asymmetries'[4], and (2) markets can by themselves ensure full and best use of ICTs in all or most areas of development.

There is some merit in these assertions, and they represent a good opportunity for advancing the interests of disadvantaged groups, and for making progress towards achieving the MDGs. It is, however, equally important to recognise the limits of such a market-based approach; to do which may be the principal policy challenge today, if the aim is to assure connectivity and access, and the full benefits of an equitable information society, to all.

ICTs for economic empowerment

Connecting to outside dominant markets does not necessarily produce benefits for all in a local ecosystem. This has been illustrated, for instance, by the experience of many countries of Africa that were forced or lured to open up their markets under WTO agreements.[5] A lot depends on how the terms of the trade develop, and on the institutional maturity in the local community which gets exposed to the outside market. A positive outcome on these critical factors requires both strong regulation for fair and equitable terms of trade, and a pro-active public sector role in development of local institutional capacities. These are significant 'public goods' activities requiring a strong and active state. Such a role for the state becomes even more crucial when local economies are rapidly exposed to new markets, which are increasingly dominated by large and powerful players. In fact, it is now widely acknowledged that ICTs strongly support tendencies towards market power concentration. This makes it necessary to have correspondingly stronger regulation for ensuring public interest.

The above arguments can be illustrated by examining some ICTD initiatives.[6] In India, in the much celebrated *e-choupal* (e-village-square) initiative, farmers benefited from realization of higher prices for their produce when a giant commodity company established direct ICT-enabled

[4] With the evident failure of 'Washington Consensus' based policies, the problem of information asymmetry is often used to justify a relatively more active regulatory role of the state as a part of what has come to be known as the 'Post-Washington Consensus'. However, asymmetric distribution of information is only one of the many structural issues concerning the role of markets in the economic and social development of marginalised groups and people.

[5] Joseph E Stiglitz in his "An Agenda for the Development Round of Trade Negotiations in the Aftermath of Cancun" quotes a UNDP report which estimates that "under the WTO regime, in the period 1995 to 2004, the 48 least developed countries will actually be worse off by $600 million a year, with sub-Saharan Africa actually worse off by $1.2 billion".

[6] Information on all the three ICTD initiatives discussed here is collected directly through field visits by the author's organisation, IT for Change.

channels to the farmers, removing the intermediaries. However, as in this process alternative possibilities of procurement have slowly got eliminated, these gains are unlikely to last. Through this proprietary ICT based out-reach structure, the commodity company now firmly controls the farmers' primary channel of 'connection' to the outside 'agriculture support ecology', in which the company is also one of the most powerful players. This control lies in monopolising not only the transaction platform but also the information available through the *e-choupal* tele-kiosks. All the dangers of a monopolistic market are on the anvil. The likely long term impact on the farmers and other local people should be fairly obvious. Capital, especially modern day limited liability shareholding capital, is *structurally* incapable of resisting the lure of high monopolistic profit when it comes in conflict with any altruistic objectives. It is therefore not about any particular company or the people who manage it. Rather, it is an established social and economic reality that ICTD cannot remain blind to.

A counter example of an unorthodox ICTD approach, also from India, is of the *e-Krishi* (e-agriculture) initiative of the government of the state of Kerala. *E-Krishi* seeks to (1) provide a public and neutral platform for selling and procuring agricultural produce, and (2) develop local institutional and collective capacities, *inter alia*, through supporting *Bhoomi* (land) clubs of farmers. Thereby, the two important 'public goods' functions discussed above – of ensuring fair and equitable platforms/terms for trade, and of pro-actively developing local institutional capacity – are both sought to be fulfilled by *e-Krishi*. This initiative, unlike *e-choupal*, is also exploring specific support facilities for small and women farmers, ensuring inclusive market strategies. Significantly, *e-Krishi*, which, as mentioned, is an initiative of a government agency, prides itself on being a market driven system. The descriptive name of the *e-Krishi* initiative is – 'Market Driven Agricultural Initiative through IT enabled Agri Business Centres'. What it really seeks to do is to develop an appropriate complementarity between the roles of market, public sector and community, unlike the highly biased and unbalanced market fundamentalist stance of the dominant ICTD sector.

ICTD literature is full of anecdotes suggesting simplistic understanding of how poor people have benefited from availability of market information, celebrating the role of ICTs in removing market imperfections, which, apparently, are caused mostly/only by information asymmetries. It ignores the complex social-institutional settings in which relationships of information and power – including economic power – interplay, which determine who benefits from the markets and who does not. The kind of pro-active measures taken by the *e-Krishi* initiative, in providing non-market institutional support, are essential if disadvantaged people have to derive economic benefit from ICTD projects. The SEWA organisation in the state of Gujarat – a trade union of women in the informal sector – provides similar pro-active structural support for disadvantaged women to enable them to derive economic benefit through the use of ICTs.

ICTs for Social Development

The above analysis concerned the area of economic benefits for, and empowerment of, the disadvantaged through ICTD. As we move to the area of social development, the role of markets becomes even more complex, and a fundamentalist belief in markets even less tenable. The

dominant ICTD model holds that since social development activity is beneficial to the people, there should be a manifest demand for it. And, since ICTs add so much efficiency to all processes, greatly reducing the cost of transactions, it is both tenable and the most optimum strategy to use demand-led market-based models for 'delivery'[7] of social development as well. Such market-based initiatives are posited to only require minimal corrections for possible market failure, if any, and this too mostly only in the initial period.

Such a model completely ignores the fact that exclusive or even primary reliance on markets for 'delivering' social development almost invariably causes erosion of equity and social justice in the process. This can be substantiated with many examples from the field of development in general, and ICTD in particular.[8] Universalistic models are required in key areas of social development, like the ones captured in the MDGs, rather than market-led models which cause structural distortions in the social development space, leading towards even greater inequity.

Mobiles versus computer-Internet technologies – a 'poor woman's information society'

The phenomenal explosion of mobile phones in developing countries is presented by the dominant ICTD model as its poster-boy. Any critique of this model therefore cannot be complete without examining, at some length, the assertion that since markets have been able to bring mobiles to most in developing countries, it proves that markets will suffice to distribute the opportunities opened by an emerging information society to everyone, more or less equitably.

Neither the benefits that mobile phones (or, in short, mobiles) bring to their users, nor the extent to which they have spread across social and geographic categories, is necessary to describe. Use of mobiles has also brought about some significant structural changes, for instance, in relation to small businesses and the informal sector, and in the social life of migrant labourers. However, telephony, even mobile telephony, does not make an information society. It may be instructive to note here that while the prevalence of telephony has been near universal in the developed countries for many decades now, no one spoke of an emerging information society in such a context.

The phenomenon of the information society is something quite different, and much larger, than just access to mobiles. It essentially builds on a paradigmatic coalescing of digital technologies of computing with an innovative connectivity model based on what is known as the Internet Protocol or simply IP. While this 'technical event' provides the transformational point of departure, the emergence of an information society still essentially consists of a set of historical social-structural developments, following established contours of power and dominance as well as providing new contextual opportunities for progressive social change. These developments have been subject to a great amount of social analysis[9] which examines how the ICT-

[7] The language of 'delivery' of development 'services' itself is problematic in a context where development is increasingly postulated as a participatory and co-constructed process

[8] Due to constraints on the length of this document, it is not possible to present and examine these examples here.

[9] 'Information society studies' has emerged as a distinct discipline.

induced changes that we are living through can either take us towards much greater equality and freedom – among others, from poverty and destitution – or towards a more alienating, unjust and unequal, and centrally controlled society.

In the developed countries, the new ICTs have evolved in a relatively mature dialectic with social institutions – whether of the market, the public sector or civil society. This dialectic gives shape to the dominant 'global' version of the information society that – due to, and through, our rapidly increasing connectedness – is often presented to the world as some kind of an ahistorical and culture-neutral 'scientific-technical' product. In the developing countries, on the other hand, the new ICTs, and attendant social constructs, often represent a hurried, and uneasy, implant. It is within this overall context of the dynamics of an emerging 'information society', which is a political space for both possible inclusions and exclusions, that the meaning and implications of the phenomenon of mobile telephony has to be examined.

The principal use of mobiles is in terms of tele-voice (conveying voice over large distances). The value to the connecting parties is obviously high, and does not require mediation by any elaborate social-technical[10] systems. Apart from some easily learned skills, users need nothing other than a basic handset and connectivity infrastructure, which can to a large extent be considered culture-neutral platforms enabling voice to travel. Such 'voice transfer' enables communication across large distances using the common language between the connecting parties. Fortunately, language is (still) largely a non-proprietary and collaboratively-developed technology, and the connecting parties pay to none for its use. The network infrastructure is also neutral to different languages, and therefore its extension to different cultural spaces is a simple phenomenon of technology scale-up, which has hugely reducing marginal costs. (Peer-to-peer text transfer application – SMS – on mobile also largely admits of a similar analysis, though it is not script neutral, and therefore has this one important element of culture-specificity.) This is the context in which mobiles are today spreading through all classes, across geographies and different cultures.

The techno-social configurations of the broader terrain of the information society, on the other hand, are highly complex. They together constitute a new set of unique, emerging digital world 'realities' complimenting (and also transforming) those of the pre-digital world. All these emergent realities are very culture and social-group specific, and they are strongly conditioned by power relationships in the society. It therefore becomes important to examine, in the context of markets dominating the space of digital evolution as its principal player, whose power and whose 'demands' – and, therefore, specificities – shape the development of these new culture-specific digital systems and structures. And, correspondingly, to understand whose choices, preferences and needs are not addressed due to lack of economic and social power, or are catered to in the form of low-marginal-cost extensions of the dominant constructs. These dominant

[10] In times of rapid technology-induced social changes, terms like techno-social and socio-technical are helpful as representing intermediate forms in the complex phenomenon of social-technical co-determination. To illustrate the point, an emailing application is a technology, a listserv can be called a socio-technical phenomenon, and a virtual group a techno-social one, all of which cause significant social impact, for instance on the social phenomenon of global civil society's organisation.

digital constructs due to their social and cultural specificities, and entrenched relationships of power, are very often alienating and constraining rather than empowering to these marginalised users. The situation here on the main-stage of information society changes is therefore quite unlike that with respect to mobiles.

An article in 'The Economist'[11] in 2005, when measures for financing ICTD were being discussed during the WSIS, argued that since mobiles have found enormous demand, they were the way to go for developing countries, while computer-Internet based systems may be premature, because there is evidently little manifest demand for them. Such propositions need to be strongly challenged. What is being asserted here, essentially, is that mobiles constitute a 'poor woman's information society', and that she should be satisfied with it; entrenching strong symbolic and structural exclusions from the real and central terrain of the emerging information society.

'Mobiles' as an ICT therefore need to be located in this complex institutional ecology of an emerging information society, and not seen in terms of an artificial and distracting dichotomy of mobile versus computer-Internet technologies.

In fact, mobile telephony, as also the recent advances in 'old or traditional' ICTs – represented in some innovations in community radio and community video – depend on digital and internet technologies for their present forms that have low costs along with high user-end flexibilities, which is responsible for the fact of their mass usage. This further proves the falseness of the dichotomies of 'mobiles versus computer-Internet' or 'old ICTs versus the new ICTs'.

Significantly, the present dominant form of mobile telephony architecture – as it is being extended beyond peer-to-peer voice/ SMS applications – is problematic in terms of its non-network-neutrality[12], network-locked[13] nature of content-and-services, and its bias against user- and community- generated content. On the other hand, Internet in its basic architecture is open and neutral to all its users, and to all content, and its network platform is non-proprietary and telecom provider independent. Consequently, and also because user-end devices like computers enable much better possibilties for inputting and 'processing' content at the user-end, user-generated content dominates the Internet today.

It is possible, and highly desirable, that mobile phones – as relatively inexpensive and convenient user-end devices – become one aspect of this open and 'equalising' Internet ecology, rather than subvert it, as a convergence between these two kinds of platforms is imminent. However, dominant forces – mostly telecom and content companies – are hard at work to prevent any move in this direction of technology and socio-technical evolution, seeking instead to entrench the existing mobile architecture as the best solution, especially for disadvantaged people and

[11] 'The Real Digital-Divide'. The Economist, March 10, 2005.

[12] 'Net neutrality' is a cardinal architectural principle of the Internet, whereby it is neutral to all content that travels over it, and presents the same face to all its users.

[13] Unlike on the Internet where content and services are independent of the network provider, these are locked-in to network providers in the case of mobiles, and consequently subject to highly non-competitive, arbitrary commercial arrangements.

groups.[14] The latter, apparently, should be happy to consume what they get at the low prices they can afford, and not seek the luxury of participation, and of being 'producers'. This represents a much more sinister angle to the mobiles versus Internet debate which is mostly clouded by the rhetoric of 'mobiles are the technology for developing countries'.[15]

The success of the markets with mobiles is therefore unlikely to be replicated with the overall information society phenomenon, in terms of development objectives. Rather, the high penetration of mobiles in developing countries, and among disadvantaged sections, is sought to be used for building a very skewed information society architecture with thin and mostly one-way-traffic pipes built from the dominant centre to the marginalised peripheries. This model of information society is essentially non-participative, and also exploitative. It will only help further entrench current dominations in terms of economic, social, cultural and political powers. Any alternative to this dominant model will require a considerable moderating of the ICTD's current fundamentalist belief in the supremacy of the markets, and recognising the strongly complimenting role of public and community sectors.

A few other central principles of the dominant model of ICTD, mentioned in the opening part of this document, will very briefly be touched upon below, since many elements of these have already been discussed in earlier sections.

Policy and Practice– Complementarity and Not a Trade-Off?

The complementing role of development policy and practice is well recognised. The dominant ICTD model however elevates practice to an independent status, and is mostly suspicious of policy. This is why the primary way in which policy is mentioned in ICTD literature is in the role of providing an 'enabling environment', which mostly means that the public sector should try and stay away from direct involvement in ICTD practice, and instead focus on removing 'constraints' to market-based action. The earlier discussed policy imperatives of pro-active investments and interventions, on the one hand, and a pro-active regulation of markets, on the other, are mostly ignored. In the emerging situation, described by Yochai Benkler as a "battle over the institutional ecology of the digital environment",[16] the regulatory role of policy towards ensuring that information society changes serve wider public interest, and specifically discriminate positively in favour of disadvantaged sections, has to be more prominent than ever before.

To revisit the 'mobile telephony' example, proprietary mobile telephony networks, and the proprietary architecture of video-on-demand over cable or satellite TV, between them are exercising a powerful squeeze on the Internet, threatening to significantly erode or destroy the currently

[14] Mobiles are being used in some ICTD projects for linking community members and extension workers to empowering information systems, to enable them to access as well as contribute information (through SMS based applications, for instance). However, a systemic use of mobiles for an open and collaborative information society ecology will require significant policy interventions to change some basic architectural elements of the dominant mobile model.

[15] It is important in this regard to make a clear distinction between the 'mobile connectivity architecture' and mobiles as a convenient user-end device. The latter can carry either Internet based connectivity or GSM-CDMA kind of 'mobile architecture' connectivity, or both.

[16] 'The Wealth of Networks: How Social Production Transforms Markets and Freedom' by Yochai Benkler, Yale University Press.

open, neutral and non-proprietary nature of the Internet platform. This can lead information society developments towards directions that are dramatically opposed to the very progressive ones envisaged by the WSIS.[17] Only pro-active policy, through global co-cooperation on Internet policy issues that is informed by a progressive framework, can save the Internet from this danger. This issue requires urgent attention not only of the policy makers but of all progressive social and development actors. However, dominant ICTD models profess an apolitical nature, and, under their ideological influence, developing countries often greatly underestimate the dangers that a policy-neutral or policy-free approach to the evolution of the Internet poses to development.

Best Practices versus Social-Analytical Approach

Since development is a serious issue of social change, which is highly contextual and correspondingly complex, there is a strong tradition of a social-analytical approach to development theory, policy as well as practice. The dominant ICTD model however seeks to avoid such keen examination and analysis of its technical, ahistorical and apolitical approach, and generally professes some amount of derision for theory and social analysis. Its knowledge processes seek to cultivate a 'best practices' approach in the name of practicality and the need to move ahead quickly. It fails to build appropriate knowledge and theory that can usefully and contextually be applied to diverse field of development. Such an approach hinders adequate attention to the deeper implications of the directions that many of the ICTD activities may be leading towards in shaping the emerging information society.

ICTD and 'Traditional' Development Practice

Because of the many reasons discussed above, pre-ICTD or 'traditional' development practice and actors have largely kept a suspicious distance from ICTD. ICTD is typically led by people with technical and/ or private sector background, who are often not ready to give adequate value to the experience of development actors working in the field for many years, and to accept its legitimacy and validity. The influx of a large amount of private sector funds in ICTD arena further aggravates this situation. Companies providing these funds typically seek quick marketable 'solutions', and find comfort in the vocabulary of management and technology, and of efficiency and markets, rather than that of participatory approaches, collectives, equity, and social justice, that traditional development actors are likely to use. As can be expected, these companies tend to support these 'new' ICTD actors.

It is true that traditional development actors also need to give up their inhibitions regarding new ICTs and new 'organisational processes', and that development practice may itself need to change to some extent in the new situation of an emerging information society. The directions of these changes need to be discussed, theorised, understood and internalised. However, there can be no doubt that ICT-based initiatives in

[17] The WSIS Declaration of Principles opens with expressing "our common desire and commitment to build a people-centred, inclusive and development-oriented Information Society, where everyone can create, access, utilise and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life…."

development arena have to be centrally located in the mainstream development practice, and led by the same development actors who have traditionally been involved with development practice.

Anchoring ICTD in 'Development' – Taking a Rights-Based Approach

In order to attract the interest of traditional development actors, development opportunities in the emerging information society – which, potentially, are indeed transformative – will foremost have to be presented in a language and a framework that these actors are conformable with. Such an alternative conception of ICTD must also reinstate the balance between our faith in the markets, and recognition of legitimate roles of public and community sectors. It should give due primacy to framing appropriately progressive development and technical policies (like, Internet policies and software standards policies) in the area of ICTs. Development of such policies should go hand in hand with ICTD practice.

ICTD should be historically located in the existing development theories, and subject to rigorous analysis. At the same time, it should incorporate learning from the emerging discipline of information society studies that examines the nature and directions of social changes that typically constitute the emergence of an information society.

Following UNDP's practice of applying a rights-based approach to many key areas of social development, it will be in order to explore such an approach for ICTD. Rights refer to the basic conditions that must be ensured equally for all human beings. Access to and skills in Internet technologies are fast becoming a basic condition for obtaining empowering information, social communication and networking, and making many citizenship transactions, apart from being an important skill required in the job market. In the circumstances, ensuring Internet access and related skills for all people, along with the enabling conditions for appropriation of these technologies for self-determined purposes, becomes a collective responsibility.

Like education, such basic access to, and ease with, ICTs, represents a set of basic 'capabilities', and would qualify as a basic right as per Amartya Sen's capability framework. This framework strongly underpins UNDP's rights-based approach to social development. The parallel between the empowering potential of education and that of appropriation of the new ICTs is, indeed, remarkable. The UN Internet Governance Forum recently chose 'Internet for All' as the overall theme for its third annual meeting in India in December 2008. The Forum's program document mentions that this theme has been chosen "in analogy with UNESCO's 'Education for All".[18]

UN's Global Alliance for ICT and Development (GAID) has a flagship initiative for providing "Free Access for all Schools to the Net". A write-up[19] on this initiative asserts the need for universalising the information society opportunities through schools.

> … no specific and systematic effort has been undertaken to connect all schools to the Internet and henceforth enable teachers and students alike to be part of and benefit from the information society. GAID will provide the umbrella for the campaign to mobilize support for

[18] Rolling *paper on the programme, agenda and format* of the Internet Governance Forum's India meeting. www.intgovforum.org

[19] http://www.un-gaid.org/en/node/178

this initiative and help finding innovative financial solutions to avoid the cost burden for schools.

Since, new ICTs are not only an education technology but also a tool of engagement with most social institutions for every person and community, the same logic of ensuring that everyone be a "part of and benefit from the information society" can and should be extended to all – every person in every community. For many communities and people this has to be done in manner so as to "avoid the cost burden" for them, or as "free access". This is what essentially is meant by a development policy based on a rights-based approach to basic connectivity and access.

These early shifts in policy-level thinking, and corresponding practical efforts, need to be captured in their theoretical significance through building a rights-based discourse in ICTD. A rights-based approach will require devising strategic and comprehensive plans, in a context specific manner, aimed at addressing all issues implicated in reaching the goals of universal connectivity and access to ICTs, and their universal appropriation. Such an approach does not ignore market forces, and wherever possible seeks to use them for the achievement of the desired goals. However, the criticality of the identified social development ends is recognised to be so high that 'market as the sole or even primary means' cannot be treated as a sacrosanct principle in the face of the emergent recognition that strong public and community interventions will be needed for achieving these goals.

MDGs are seen as representing non-negotiable policy imperatives that arise from people's basic rights. Empowering access to ICTs also needs to be similarly seen through a rights-based lens. Such an approach will provide ICTD a new point of anchor to develop its theory, policy frameworks and practice in a manner that mainstreams it into 'development'; as 'development' is known and practiced, with its central ethos of equity and social justice, and methods of participation involving bottom-up ownership and appropriation of the processes of development.

IT for Change
Bridging Development Realities and Technological Possibilities

IT for Change (ITfC) is a non-profit organisation located in India. ITfC envisions a society capable of, and comfortable with, innovative and effective use of information and communication technologies (ICT) as a tool, to further goals of progressive social change.

This paper is a part of ITfC's 'Information Society for the South Project'. This project interprets information society changes in light of the development needs of the South. It seeks to develop research and advocacy capabilities in the South with regard to the information society discourse.

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