4. Cake for the North and Crumbs for the South? Challenging the Dominant Information Society Paradigm

Anita Gurumurthy & Parminder Jeet Singh

With its neo-liberal agenda and market-centred approach, the dominant discourse of Information and Communication Technology for Development (ICTD) has yet to build an information society paradigm that harnesses these technologies for the goals of development and gender equality. This paper deconstructs the debates between old and new ICTs, as well as between the benefits of mobile telephony versus computer-Internet infrastructure, to make the case for a political economy analysis of gender, development, and ICTs. Through such an understanding of the structural changes wrought by the new ICTs, gender advocates and development actors alike may engage with policy making to fill the existing vacuum in the arena of ICTD, and thus realise the transformative potential of the information society.

This paper was originally written for a seminar on 'Mapping Gender in the Information Society: From Reality to Discourse' in 2005. We are reproducing the paper with a few changes, since the propositions presented in this paper have stood the test of time – a relatively difficult thing to achieve in the fast changing information society context – and, in our view, hold as much value today, if not more.

This paper is inspired by two unrelated events. The first is the publication of an article in *The Economist* (2005) that attracted considerable attention in Information and Communication Technology for Development (ICTD) circles. The article was published at a time when financing mechanisms for ICTD were being hotly debated in the preparatory meetings of the second phase of the World Summit on the Information Society (WSIS). The essence of the article was that telephones, especially mobile telephones, are useful for the poor and that computers and the Internet are of little use. The article also took the view that free markets are the way to bring mobile telephony to people. The article denounced the Digital Solidarity Fund[1] and similar ICTD financing initiatives that commit public and donor money to develop a computer-Internet infrastructure in developing countries on the grounds that such infrastructure is largely useless for people in these countries.

[1] This was a voluntary fund proposed by some countries and city governments during the WSIS.

The second event is an experience that our organisation, IT for Change, had with an ICTD project proposal and our sheer inability to convince the project selection committee about the nature of its empowerment potential for women. The project aimed at addressing the collective empowerment of rural women from marginalised sections, their organisational strength and identity, and their information and communication needs. The project proposal did not fit neatly into typical ICTD frameworks – neither did it offer a straightforward list of services that would be delivered by the project, nor was it built around revenue models. We felt over the protracted period of engagement with the selection committee that the vocabulary to argue the case of ICTs for meeting women's development priorities and collective empowerment is by and large absent.

The problem is that it is indeed difficult to grasp and articulate, within the mainstream ICTD and information society discourse, how ICTs can potentially intersect all at once with poverty, development, and women's empowerment – how *dalit*[2] women's information needs, collective identity, organisational strength and strategies, and engagement with external institutions are important but intangible outcomes that can be achieved through an appropriate use of ICTs. Explaining and understanding an approach that seeks to use ICTs to make change happen at an institutional level – at the level of women's collectives and their social ecology – is certainly more difficult than, for instance, elucidating a media strategy for women using ICTs, which has an existing lineage in development communications discourse.

Also, in developing our project proposal, it was equally challenging for us to dialogue with the women's organisation we sought to work with, and to reach a shared understanding of how its feminist goals would at all be advanced within the context of its grassroots work, if ICTs were introduced to support its existing strategies. One lesson was very clear – that conversations between theory, practice, advocacy, and change are still marked by much discomfort within the discourse of ICTs and development. There also exists a great chasm, in this respect, between the ICTD sector and what by contrast may be called the traditional development sector.

These two events, though unrelated, capture revealing perspectives on the uneasy relationship between ICTs and development. They reflect an inadequate conceptual grasp of the ICTD space and insufficient theorisation of the connections between development and the new ICTs from Southern perspectives, beyond simplistic market prescriptions as offered by the cited article in *The Economist*. They also denote the territory that Southern feminists must map to conceptualise ICTD such that it accounts for the claims of women in the emerging information society.

---

[2] The most disadvantaged caste in India.

The Problematique of the South

In arguing for a political economy analysis of gender, development, and ICTs that is South specific, it must be clarified at the outset that we are aware that the categorisation of South and North is strongly debated and even contested, and as pointed out in feminist literature,[3] at times also considered part of a neo-liberal design. While it is true that what primarily defines the boundaries of social exclusion are poverty, discrimination and oppression and not geographic location per se, specific North-South dimensions that have consequences for feminist activism and advocacy must be recognised, especially from a political economy perspective and from the vantage of institutional analysis, which is a central preoccupation of this paper. Geo-political location thus becomes useful to embed analysis within the broader political, social, cultural, and economic environment. Devaki Jain captures this in a simple and hard hitting way:

> Illustrations of similarity [between the North and the South], however, conceal that the poor in Chicago, whose outcome indicators are similar to the poor in Bangladesh, still have a social-security floor, social insurance, or some basic social welfare entitlements. The poor in Bangladesh, on the other hand, could easily die of starvation, lack of clean water, or various forms of pestilence and disease, as they have in the past and continue to do so. In other words, unprotected death is a real, proximate and completely tangible phenomenon among the poor in most of the poor countries, but not so for the poor in the advanced countries … Thus, inequality and poverty, which admittedly exist everywhere, take a different characteristic in the South. The inequality in South countries has a kind of vividness, cruelty and deprivation that offers no reprieve – it has no cushion, no safety net, no umbrella (Jain 2001, n.p.).

This paper does not seek to minimise the global feminist project, which seeks legitimacy across geographies and diversities. Rather, it seeks to explore how the dominant ICTD discourse falls short of adequately unpacking the specific impact of ICT policies and approaches in the South, and of anchoring perspectives that are essentially Southern. The paper argues the need for a Southern feminist analysis of the ICTD landscape and for the articulation of alternative approaches in ICTD through the lens of institutional transformation.

Feminist Critiques of New ICTs

Feminist critiques of new ICTs go back to problematising NGO approaches that informed media advocacy in the Beijing process. One such critique (Cheung 2001) argues that the understanding of information and communication for women's empowerment has been

[3] Ewa Charkiewicz (2004) argues that among the key instruments of global governance is the division of the world into North versus South and that the metaphors of North and South as techniques of representing the world are crucial for the formation of the global empire. The amorphous spaces, the unnamed territories, tand he multitudes are ungovernable. They have to be named, categorised, calculated and problematised to be ruled.

distorted into a frozen media-technology discourse of 'women and media' plus 'women and new communications technologies' in the Beijing Platform for Action. A similar approach is seen as characterising the WomenAction2000 project, set up by some NGOs during the first PrepCom[4] of Beijing Plus 5, which used a mix of ICTs – print, radio, TV, Internet, email, and fax – to develop a "global women's information and communication net".[5] Cheung's critique also contends that the specific needs of women were not separated from the needs of women's NGOs and that "the static media-technology discourse failed to challenge global digital capitalism and consumerism in mass media and new communication technologies" (2001, n.p.). Adopting the view that the Internet may be a hegemonic project, the critique concludes that in women's groups' engagements with the Beijing plus 5 processes,

> the understanding of IC(T) was limited, and there was inadequate scope for contextualisation of policies because technology was emphasised over the information and communication needs of the women/users. Mass media and new communication technologies, especially Internet, were emphasised at the expense of traditional medium (such as drama, folk songs etc.) and other forms (audio, oral, corporal etc.) of information and communication (Cheung 2001, n.p.).

Even as such analysis provides an important perspective to think about new technologies within the feminist project, it remains located within a media and communications framework, under-emphasising some manifest new realities. Dismissing the Internet as dystopian and labelling it as a new hegemonic project, it reflects a construction of cyberspace as a site of power, where hierarchies operate. While the critique is valid from a feminist viewpoint as far as it seeks to map the wider political context of the Internet, the analytical framework is based on the limiting assumption of the Internet only as a site of communication, characterised by the hegemony of a capitalist globalising discourse. While making a strong case for women's information and communication needs and the contextualisation of the needed interventions, it slips into a dystopian view of technology and is unable to engage theoretically with the opportunities for subversion and transformation that the Internet holds, and the institutional shifts that it makes possible through the paradigmatic 'disruptions' in social structures. Further, such a perspective valorises traditional media, conflating the new with the hegemonic and the traditional with 'subjugated knowledge' seen as appropriate for the subaltern.

Another recent research (Isis 2007) builds on empirical evidence of the use of a range of media by intermediary women's organisations. The study seeks to "determine the most effective communication tools used by intermediary groups to reach grassroots women", examining "whether new ICTs are perceived as more effective and more empowering compared to traditional communication tools". The study concludes that the findings "overwhelmingly support the power of traditional communication tools over new ICTs for

---

4 Preparatory Committee

5 http://www.women.or.kr/ehtml/new_win/ewomenaction.html

grassroots women's empowerment". Film or video is reported to have emerged as the top communication tool, followed closely by radio and popular theatre. Affirming the place of appropriate and contextual media and local communication processes, the research findings caution against pushing new ICTs in development projects at the expense of traditional communication tools. High costs, lack of infrastructure, and skill and literacy requirements are identified as obstacles to using computers and the Internet with grassroots women.

While Cheung's critique (2001) of new ICTs focuses on the hegemonistic aspects of the Internet, the Isis research is more concerned with the inaccessibility of computer and Internet technologies for grassroots women. However, the Isis study, like Cheung, also seems to adopt a limiting view of the Internet only as a medium of communication. Further, in valourising the place of video and radio in local communications, the Isis research does not go as far as to unpack the evolving paradigms of these tools in the emerging digital ecology. Its approach to 'traditional' and 'new' implicitly suggests a dichotomy that in many ways is not true in the current digital paradigm that decisively alters the cost, accessibility, and participatory aspects of 'older' tools like video and radio.

Thus, notwithstanding the fact that existing media and communications frameworks in feminist analysis rightly argue the need to reclaim the local and negate the hegemony of the global, they do not connect adequately to the structural aspects of ICT-induced social transformation and women's shifting locations within this.

Civil Society Positions at WSIS

Some early civil society engagements with the Geneva phase of the WSIS highlighted the neo-liberal moorings of the ICTD discourse, describing how the promise of growth through ICTs was by and large a story of digital sweatshops and, in fact, yet another manifestation of the false promises of global capital.[6] The reign of corporate monopolies within the ICT arena, the emergence of monopolistic transnational media, the issue of stranglehold of proprietary regimes in software, and the unbridled deregulation and privatisation of the telecom sector in developing countries and consequent takeover by multinational corporations (MNCs) of markets in these countries were seen as a continuum of issues, all related to corporate globalisation. The absence of adequate ICT infrastructure in countries of the South was flagged in the assertion of a digital divide, bringing to the fore the need for a Digital Solidarity Fund, initially proposed as a kind of taxation on public procurements of ICTs in developed countries, especially to deal with ICT infrastructure investments in Africa. When governments at WSIS adopted the WSIS Plan of Action, some civil society organisations held that the implementation proposals were a "perfect disguise for getting access to new markets, specifically the newly emerging larger markets in regions like Latin America and Asia (particularly India and China)" (Isis 2004).

---

[6] These and the following civil society positions are the authors' personal observations of the WSIS processes.

The analysis proposed by these civil society organisations was a considered critique of technology-led changes built within a framework of communication rights[7] as the overarching layer which, conceived within the frame of a free and pluralistic media, upheld the freedom of expression and the right to communication of all peoples, and the need for protection of culutural diversity. The ownership of and control by communities of the new media spawned by the new technologies was seen as an answer to hegemonic ICT models.

Towards a Southern Perspective

These critiques of ICTD and of the WSIS processes, however, do not sufficiently problematise the impact of neo-liberal approaches to ICTD in the South.

The need for engagement with new ICTs in developing countries goes much beyond issues pertaining to freedom of expression, the right to communicate, or a responsive local media. What is as important is an exploration of opportunities afforded by new ICTs for strengthening and revamping multiple social institutions. However, the dominant view, which sees ICTs solely in terms of their potential for commercial enterprise and for economic growth, has meant that there is no serious effort in the direction of such institutional reform. On the other hand, the 'progressive' response in engaging with only the media aspects of new ICTs has not helped an appreciation of the full significance and extent of information society changes and their implications for the developing countries, especially disadvantaged sections in these countries. What is needed is a strong political economy lens to view the structural changes that are taking place across almost all social institutions and the use of such a lens to build a progressive Southern perspective on the emerging information society.

In their dominant conception and application, ICTs have been constructed basically as a market infrastructure, to be put in place by the private sector. The telecom approach of most governments in developing countries has disregarded social and development aspects. Such an attitude is exemplified by the fact that many ICTD projects driven by local governments, for instance in India, have come in conflict with national telecom policies on issues like local wireless connectivity and VoIP[8] that provide cheaper and more appropriate local solutions, because national telecom policies are largely driven by market and business requirements and not by development needs.[9]

On the other hand, whatever markets are able to profitably sell in developing countries, i.e. mobiles, are sought to be placed at the centre of new development and poverty alleviation models, promising, *inter alia*, improvement in gender equality. Southern governments still do not see ICTs as development infrastructure that needs concomitant policy commitment and a translation of such commitment into investments.

---

7 See Communication Rights in the Information Society Campaign at www.crisinfo.org.

8 Voice over Internet Protocols, such as Skype, are a tele-voice application over the Internet.

9 See http://www.itforchange.net/projects/#pro-poor for 3 case studies of local ICTD initiatives and their issues regarding connectivity solutions.

The recommendations for relying solely on a market-led ICT revolution to 'bridge the digital divide' have also come with prescriptions for public sector reform, the emphasis here being on making even governance systems market-led. ICTD is also cast invariably in the language of 'applications', reflecting the construction of ICTs as staright-forward tools of efficiency, represented in the 'e's' that may be used as accessories to health or learning or banking or governance. With the 'e', however, also comes the marketisation of all underlying domains to which it is applied. E-governance, e-learning, and e-health all seem quite removed ideologically from how governance, learning and health have traditionally been theorised and practiced.

Much of multilateral aid in developing countries has gone in the direction of resource intensive, unreplicable pilots built on private entrepreneurship models that have not borne out any lessons for the institutionalisation or upscaling of ICT-enabled alternatives to address structural issues of poverty or unemployment, or to provide innovations in health, education, etc. With few exceptions, attempts to address questions of women's access to ICTs have been presented within the framework of such ICTD models, employing initiatives that have sought to bolster women's economic activities through mobile phones or through telecentres based mainly on revenue or profit models. The approach to women's empowerment within the ICTD paradigm is almost identical to donor approaches to micro-credit, where women beneficiaries become the target of an aggressive market expansion strategy that rewards those who can survive in the market (and survive the market).

With prolific instances of failure of market-centred ICTD initiatives, the time for revisiting some basic questions is more than ripe: what is the role of new ICTs in the context of development and gender equality; and what kind of institutional investments in ICTD are required for achieving various development goals, beyond the mere grooming of future workers for a global economy?

Civil society advocacy in the countries of the South does not yet possess a coherent vocabulary to challenge the dominant trends, nor do development sector activists see ICTD issues as directly pertinent to their activism. The inadequate exposition of the ICTD discourse in traditional development terms has meant that there exists little that connects ICTs to development priorities, whether as critiques of the dominant ICT paradigm, and its social and political impacts, or as an elucidation of what ICTs can do for the poor in general and poor women in particular.

Deconstructing the Debate on Old Versus New ICTs

Against the larger landscape of a market-driven ICTD discourse, the alternative discourse on women's empowerment through ICTs is located on a continuum with participatory media approaches. Feminist practice seeks to emphasise women's ownership and control over media, as in the many community radio and video projects in the South that give visibility to women and their perspectives. Gender analysis of the context of women in the South asserts the infrastructural impediments in women's access to new ICTs, like the absence of electricity, connectivity, etc., and of their inability to benefit from the gains of the Internet on account

of illiteracy, restrictions on mobility, and other dimensions of gender discrimination. The analysis of the non-availability as well as the 'inappropriateness' of the Internet in these contexts has led to a simplistic articulation of alternatives to dominant ICT paradigms by development actors in the South. 'Old' or 'traditional' technologies like radio are seen as the answer to women's information and communication needs and the Internet and computers are seen as irrelevant technologies that cannot meet the information and communication needs of poor women.

This formulation is problematic in two ways. It fails to see Internet technologies as much broader development infrastructure, which, while providing information and communication platforms, also essentially transforms the information and communication architecture of social structures. It also hands over the case of new technologies for the South on a platter to neo-liberal interests, as represented in the piece in *The Economist* which spoke of the irrelevance of the Internet to the poor in the developing countries. Interestingly, bottom-up media and traditional practice models, and the neo-liberal stance on technologies for the South find an unexpected convergence in demand-led frameworks of technology choices, in times of far-reaching technology-led societal changes which require strong push or supply-driven models – as, for instance, were adopted for a rapid spread of education – in tandem with localised appropriation models.

If radio and video can appropriately respond to the information and communication needs of poor women, Internet-based technologies can revolutionise the context of their social, economic, and political relationships. And since the market is not going to find the incentives to reach new ICTs to poor women, social policy needs to commit itself to building the physical and social infrastructure for engineering institutional change through ICTs that serves the needs of development and empowerment of women.

Thus, from a feminist standpoint, the Internet is to be seen as new media no doubt, but it is also the foundation of new institutional arrangements. As a communication platform, it offers spaces for resistance, and as a new architecture of social institutions, it offers space for subversion and transformation, paving the way for a new social organisation in which traditional power structures can be challenged. Within an institutional framework, the Internet may thus be seen as a mediator of change, transforming institutional structures, norms and values, and the way social relations are constructed within institutions. Such a shift marking a dislocation of old power structures may be understood as similar to the social transition from a pre-industrial to industrial society. For women and other marginalised social groups, the information society potentially marks a paradigmatic shift in their social relationships as institutional arrangements undergo fundamental changes.

Is the Promise of ICT-Mediated Institutional Change Real?

In order to harness ICTs for development goals, the role of technology has to be interpreted and shaped within institutional frameworks of development. ICTs are required to be deployed in the context of the current limitations of institutions serving women's development needs with the clear purpose of mediating appropriate institutional changes.

Some of the most crucial institutions in the women's developmental ecology are those of the government. The extension machinery of the government's development departments has entrenched bottlenecks in terms of reach, efficiency, and accountability. How can new technologies be used to overcome these constraints?

Even in many developing countries, the state promises a lot of legally enforceable entitlements as a social security net. However, the allocations are so low for these entitlements, as well as leakages so huge, that a good part of the promise remains on paper. Can ICTs enforce responsiveness and accountability in the social security system in a manner that these entitlements cannot be denied to anyone who is legally entitled? But would that raise the stakes in the social security system so much that the entire resource base of the governments will need to be re-worked? How much of the needed resources can be saved through system efficiencies alone, and how much would it mean to re-orient the governance and taxation system to meet the requirements of a truly welfare state? What then are the connections of such a governance system to models of economic development in a globalised world?

There are numerous other institutional bottlenecks that may be possible to address. Women in rural areas have poor access to banking and micro-credit. The issue of transaction costs – low per transaction volume as well as low density of transactions – is the main constraint. Can ICTs be used to re-vamp rural banking in a manner that can bring empowerment to rural women struggling to break traditional norms of male control over economic resources? Can ICTs be used to develop and strengthen institutions of social organisation among rural women who are individually placed in disempowering social contexts and greatly need to use collective strength to forge changes?

These posers are not just concepts or likely possibilities. Some examples from India illustrate the range of these new possibilities. The Akshaya project of the Government of Kerala in South India is attempting to use ICTs to make development delivery more participatory, effective, and cost-efficient. The rural E-Seva project in West Godavari district of Andhra Pradesh state has made information about social security processes like the public distribution system (a food security net in India), old age pension, concessional loans to weaker sections, etc., open and accessible using digital platforms. Such openness gives citizens strong levers to extract accountability from the government. E-Seva community telecentres are managed by women's self help groups, giving local women a new social role in the village community.

In villages of Madurai district of Tamil Nadu state where DHAN Foundation, an NGO, works, villagers interact with government officials through video conferencing. Participating from a village community hall, it is possible for the community to raise questions that may be difficult to bring up inside government offices. The video conferencing throws the entire interaction open to the scrutiny of anyone, including superior officials. In this new digital 'open space', the citizen-official interaction is transformed in a manner that can be empowering to citizens, with special significance for women who may otherwise be constrained by various cultural norms, for instance, in terms of mobility.

Telephone and mobile networks are being used by grassroots women's groups like SEWA in the state of Gujarat to strengthen their organisational systems and processes. In the same state, in Bhuj district, women participate in village resource and people's mapping using digital systems to generate data for developing participative village development plans.

The Piece in *The Economist*: Understanding the Political Economy of the Information Society

The cited article from *The Economist* employs the contrived logic that mobiles are much more appropriate and should be considered key to spreading technology for development, to undermine the value of computers and the Internet for the poor in developing countries. This argument is unpacked below.

Telephone penetration in most countries of the North has been at near-saturation levels for a few decades now; yet it took the development of the Internet for the notion of an 'information society' to be invoked. Social institutions of the North have been changing paradigmatically over the past decade or so. Mediated by the Internet, these far reaching changes are evidenced in every aspect of society – from government to entertainment, media to education, and markets and work organisation to health systems.

The cost-effective paradigms that the Internet has made possible have even altered the technology and economics of telephony, and if a complete replacement of traditional telephony by Internet-based telephony has not taken place, it is mostly on account of regulatory reasons, that may be over- protective of existing business interests.

The argument that the digital divide is just a symptom of deeper divides like income and literacy erroneously labels poverty and exclusion as causes, when they are in fact the results of entrenched institutional barriers and biases that need urgent attention. As discussed earlier, the formulation that access to computers or the Internet is meaningless in developing country contexts is also as problematic, when the real meaning of the digital divide to people of the South is in being left behind even more than before as the Internet mediates far-reaching institutional changes in societies of the North. Further, Internet-based global systems are being shaped by dominant interests to build rent seeking positions, and consolidate their economic and social power.

The placing of telephony, computers, and the Internet all on the same continuum reflects the problematique of an insufficient conceptualisation of the information revolution contained in the new paradigm made possible by digitalisation and the Internet. The dismissal of the Internet and computers as inappropriate for the South and the push for mobile telephony through free market and pro-big-business telecom approaches, as the most appropriate technology option, celebrates neo-liberal ideology – 'you get it if you deserve it' – even as it hands down an apology of an information society to the South.

The technology revolution in the North, it is believed, has by and large been led by private sector innovation, whereby markets followed demand and technologies have found appropriate use in this process. The political economy of the information society in the North thus follows from the assumption that the market knows best and is guiding institutions in their mutation, leading up to an information society. The role of the government is in providing an enabling environment for the market to function effectively and in addressing specific socio-cultural externalities of information society changes.[10]

By this logic, the verdict for the South, as argued in *The Economist*, is that the meteoric rise of mobile telephones is proof enough that these must be the appropriate technologies for the South, at least at for the present. And conversely, the failure of ICTD projects using computers and the Internet illustrates the inappropriateness and irrelevance of these technologies.

There is no doubt that several development and governance innovations are now possible using mobile phone devices, particularly because of the relative low cost of mobiles in developing counitres, the simple interface and usability features they offer, and their high mobility compared to other new technology options. Since mobiles present an undifferentiated service, of equal use to everyone with speaking and listening capabilities in any language, and accordingly requiring little or no skill requirement, they work very well for markets both on the supply and the demand side. On the supply side, after basic infrastructure is already laid to cater to the more remunerative markets, the marginal cost of extending connectivity to low-end users is very small. And, on the demand side, as already discussed, a simple tele-voice application can be used by almost anyone who has someone with a mobile phone to speak to, and therefore finds high demand easily.

However, it is important to view new ICT innovations also in the context of wider systemic possibilities provided by computer- Internet-based services. In fact, instead of computers and the Internet, as the new technologies are generally seen, it is better to speak of them as networked digital technologies, or simply, as Internet technologies. Digitalisation and the Internet constitute two paradigms around which the whole complex of new ICTs is built. These digital technologies are potent 'general purpose technologies' which pervade most social systems and mutate them. In fact, networked digital systems promise much cheaper mobile voice-applications than present day mobile systems (further comparison of Internet and mobile technology systems is undertaken in the next section).

Since the chief role of Internet technologies is as system builders, they initially attract only low levels of direct demand from individuals till relevant techno-social systems delivering specific values get built. Such systems can range from simple content in local languages to language interfaces, search engines, social networking applications, to higher services like e-banking, e-governance and e-health. Such digital systems are very contextual and need be tailored to different needs of different people, sections, and social groups, including women.

---

10 This dominant perception obscures a considerable role of public investments in technology research, innovation, and diffusion in the North.

Markets do not have the incentives to build such systems for sections with low-purchasing power, and if anything, they will seek to offer low-marginal cost extensions of systems that are already built and appropriate for dominant sections.

In the North, the relationship between market, technology, new techno-social systems, and change needs to be understood in the context of how the conditions for the 'triumph' of the new ICTs, which mark the information society, have evolved since the 70s in these societies. Seán Ó Siochrú (2004) traces this history and argues that the role of knowledge and information in society was already being recognised as central in the North in the early 70s, and thus the stage for the rapid technology innovation and diffusion that have taken place since the 90s was already set in the social environment.

The new ICTs were thus born out of a more complex dialectic with social developments than technology determinists would like us to believe. This dialectic implies a certain sync of the markets with socio-economic needs and context of the society. Under these conditions, the market may be seen as well poised in the North to lead institutional transformation towards a new paradigm — that of the information society.[11]

However, the context in which the new technologies are sought to be applied for development in the countries of the South is entirely different. The new technologies do not have an existing dialectic with institutions in the South, yet the opportunity that these technologies open up for institutional changes and transformation is real. Developing countries do not have the luxury to wait and watch for this dialectic to develop entirely through demand-led processes of the market. The process of development involves conscious public policy design for applying technology towards institutional change. In fact the term 'development' essentially signifies such an institutional, and corresponding technological, leapfrogging over what may historically be constructed as linear stages of social and economic change, through relevant public policy support and directions.

The incentives for developing countries to seek technology-induced institutional transformation is captured in an UN ECLAC (2003, 34) document.

> Immature institutions and inefficient organizations are a serious obstacle to development. The digitization process in the different e-sectors of an information society constitutes a form of institutional reorganization ... When people have less experience with the old solution they will more readily accept a new technological solution that offers them an opportunity to, first of all, tackle the old problem (satisfy their needs) and, secondly, even to bypass the previous top performer once the new system is in place (Brezis, Krugman, Tsiddon, 1991) … For example, whereas the 2002 presidential elections in Brazil were held entirely through electronic voting machines, this is an area in which the United States is still facing

[11] Many northern civil society groups do have grave concerns about the directions in which market-led information society developments are headed, especially in relation to communication rights, information monopolies, etc.

> formidable problems. In the areas of income tax payments and e-voting as well, Brazil through strong public sector leadership – has 'leapfrogged' certain developmental stages. In times of normal, incremental technological change, increasing returns to scale tend to strengthen developed countries' leadership positions. However, when a new innovation arises or major structural changes occur, a temporary window of opportunity opens up for less developed countries to catch up (Perez, 2001).

However, as the ECLAC document also points out, developing countries will need to seize this window of opportunity in these times of flux by creating their own development paths, and obviously, through their own interpretation of the information society.

> It should be pointed out that the ongoing debate in Latin America and the Caribbean regarding the transition to an information society and to the digital era is often based on 'stylised facts' and theoretical constructs deriving from developed countries. There are various reasons to believe that such facts and constructs are ill-suited to an exploration of the region's position in this process. Firstly, the industrialised economies' macroeconomic fundamentals have been kept within a reasonable range of equilibrium, and economic growth has been modest but steady. This fact provides a basis for projecting the transition to the digital era along a given path, and the macroeconomic 'backdrop' for that transition does not generate any major degree of uncertainty. Secondly, in developed countries the provision of public goods by the State and the existence of fairly mature regulatory systems and agencies creates an adequate institutional and market environment in which to examine the transition to the digital era (UN ECLAC 2003, 9).

Developing countries need to claim their share of the cake not by resigning to prescriptions of what is appropriate as defined by a neo-liberal agenda of the North, nor by succumbing to skeptics in the South who reject new technologies as necessarily irrelevant. The absence of Southern perspectives on what do new technologies mean for the South has meant an unchallenged domination of the information society paradigm as defined by the North. In meeting the needs of the poorest and the most disadvantaged, the old and the new (technologies) will both need to be claimed. Such a claim will be directed not just at addressing their information and communication needs, but also appropriately employing new technologies for institutional change that leads to gender-just and equitable social transformation. In this context it needs to be mentioned that some development actors,[12] both in the North and the South, prefer the term ICD instead of ICTD, since ICD is seen as reflecting a greater emphasis on people and social processes over technology. However, from a Southern perspective, the 'T' in ICTD represents the remaining agenda of technology appropriation by development actors in their effort for social change.

---

12 For instance, this term is used by the 'Building Communications Opportunities Alliance' comprising three bilateral donors and seven NGOs.

Mobile Telephony versus the Internet: Seeing Below the Surface

We discussed above how simplistic demand-led notions of technology diffusion are problematic in the case of technologies which serve as the very basis of new systems designs, and the means of participation in these new systems. The issue of appropriation of Internet technologies at a societal level needs therefore to be addressed in terms of seeing these technologies as a basic social and developmental infrastructure, and not just as an economic issue of resource distribution.

The proposition that mobile phones are the most appropriate technologies for the majority of people in developing countries, and that the Internet may be premature, has some other more insidious implications that are mostly overlooked by development actors.

The democratic qualities of the Internet, which have given rise to many a claim or dream of a new equalising technology that can challenge entrenched social and economic inequities, stem primarily from its open and end-to-end technical architecture. The Internet presents an equal face to all its users, so that an NGO can upload and send out 'content' across the world as easily as an MNC. An NGO website opens as quickly as that of such a company. Anyone can request information or services from anyone else on terms negotiated entirely between the two parties. And anyone can build new applications on the Internet and others can use these applications subject only to the terms laid by the application and/or service provider.

This present architecture of the Internet, potentially, facilitates a greater social, economic, and political participation of all. It allows for freer flow of information, interaction between entrenched institutions and their constituencies on more equal terms, co-constructive knowledge systems and collaborative production systems, and also more open markets with relatively equal opportunity for everyone.

The present architecture of mobile telephony, on the other hand, is of proprietary networks. A service provider can provide service only after entering into an agreement with the network provider and paying sufficient rent. All applications available on the mobile networks are decided by the network provider. Unlike on the computer format, where software comes unbundled from the hardware, mobile hardware comes with locked-in software. Mobile companies have begun to provide more and more Internet-like services — for example, banking, ticketing, specific information on demand, and even social networking, and also development services (agriculture information for farmers) and government services (m-government is a fashionable new term). Yet, there still is little or no policy effort to enforce the Internet's open architecture on the mobile telephony platform of new applications and services. One key reason for this is that dominant telecom regulatory paradigms are constructed in the North, and the Northern companies' interests are heavily vested in the mobile markets of the South.

It is in fact widely feared that the mobile services architecture on one hand, and Internet Protocol (IP) based video distribution on the other, will kill the open and end-to-end character of the Internet. These contentions are represented in the 'network neutrality' debates that

are raging in some developed countries. The South is invariably absent from these debates. Under the circumstances, technology policy paradigms that get decided in the North will then simply be exported to the South.

The above casts the mobile versus Internet arguments in an entirely different light. It is important that while feminists look for more appropriate technology choices, they do not miss the wood for the trees. The structural implications of such 'choices' need to be kept in clear view. The virtues of the inexpensive, small, mobile, easy-to-operate, voice-enabled interface as represented by mobile phone hardware compared with the costly, heavy, immobile, complex text-based interface of the desktop computer are self evident and cannot be argued against. But 'mobiles and not the Internet for developing countries' is a much deeper structural issue with respect to the information and communication architecture, as well as the broader structural and systemic configurations, that will underlie the emerging information society in the South.

In fact, it could be both easier and cheaper, than existing mobile services, to have simple handheld devices working over the Internet, with VoIP as the major application. In addition, the Internet could be provided through community-owned peer-to-peer wireless networks that are not difficult, nor expensive, to install. However, if the technology choices of incumbent telecom providers have worked in a different direction, towards more controlled networks with centralised operations, this has had to do mostly with exploitative business models and not with catering to the real demands and needs of people. Southern governments have primarily worked to help these business models, and there are many reasons for their connivance. Threat of capital flight is a major reason, as is poor in-house technology knowledge. Moreover, governments too prefer centralised networks that are easy to control for surveillance and censorship. This represents a dangerous conflation of market and state interests to the detriment of progressive possibilities.

The above discussion points to the need for taking a more nuanced view of technology options and policies rather than succumbing to simple prescriptions provided by the markets and other dominant interests. It is not to deny the importance of any empowering option – mobile telephony in this case, which does have a very important value for disadvantaged groups in the South. However, understanding the real implications of technology choices will enable feminists to advocate for appropriate policy changes. Though it is not the intent of this paper to provide detailed policy prescriptions, in order to illustrate the need for appropriate technology policy level engagements, a few policy issues related to the dominant mobile architecture are mentioned below:

1. Mobile hardware manufacturing companies should be required to embrace open platforms and make provision for undifferentiated access to all possible services, as well as for the ability to modify, delete, or add to existing software and applications based on user/community specific needs and priorities.[13]

[13] See, for example, the Open Handset Alliance, http://www.openhandsetalliance.com/.

2. Similar to the way in which access to the Internet is charged, mobile service providers should be allowed to set tariffs only on the basis of quantity of data transfers (i.e., the bits transferred each month) and not to indiscriminately enforce charges for different kinds of applications and services accessed by users. Telecom regulators can play a central role in creating this kind of an open mobile ecology.

3. Finally, mobile devices should be developed in such a way that connectivity is not reliant only on tapping into the GSM/CDMA networks of large companies, but is also made possible through local community-based wireless networks.

Appropriating the Information Society: A New Feminist Agenda

The context and opportunity for women in the South to engage with empowering possibilities of the new ICTs and the structural changes constituting the emergence of an information society, as well as to meet the attendant challenges, is caught in an uneasy trap of two very different standpoints. We have described in some detail the market standpoint of a tiered information society – both in respect of devices and digital systems one gets access to and the structural dominations that are being built on these systems. We have also briefly discussed how feminist approaches to new technologies have mostly come from local and pluralist media frameworks, focusing on existing communication practices and the high skill and cost requirements of new ICTs. Such a position is important with respect to the possible threat that a growing stress on new ICTs in donor programs may mean cutbacks on support for traditional and existing communication practices. It is also pertinent, as a cautionary note, in respect of what is understood as the inherently alienating and hegemonistic characteristic of the dominant new ICTs model.

However, the downside of such an approach is that it may blindside feminists from understanding that engagement with new ICTs, and the emerging information society, means much more than merely choosing from among a set of media and communication tools. It is equally about finding an empowering space for women in a fundamentally changing social systems landscape. New ICTs represent general purpose technologies and not any particular set of artifacts with which they are often associated. Non-engagement with these general purpose technologies, which have system wide application, would imply women's exclusion from the far-reaching opportunities of the information society.

For instance, in terms of media choices, video and radio are often cast in opposition to computers and the Internet, which represent the new networked digital technologies model. However, in characterising video and radio as more empowering to disadvantaged women, one also needs to nuance such characterisation by examining the different possibilities with video and radio in the context of empowering development communication. The typical development video model comprises relatively expensive videos created by professionals. Most current radio models are also not very participatory. However, digital technologies allow possibilities for very simple and inexpensive video making that can enable participatory media in grassroots processes. Participatory and inexpensive 'community radio' has been made possible only by digital technologies, in the same way that they make 'community

video' possible.[14] Small digital recorders have revolutionised program production, making it possible to easily record programs in remote areas. Similarly, editing of programs can also be done in the field with laptops, which are much less expensive and cumbersome than traditional editing equipment.

A hands-off approach to new ICTs will also further distance feminists from important discourses and policies shaping the contours of the emerging information society. Even as it underlies a capitalist (and even statist) consolidation, the information society also privileges values such as collaboration, and institutional forms and mores that promote greater openness and inclusion. And therefore what is at one level a capitalist transformation may also be characterised as a democratic transition (Gurumurthy 2007). This tension characterising the ecology of change is in fact the window of opportunity for feminist radical action. The emerging public sphere is not only constituted by the multiplicity of publics made possible by the Internet, and hence affording spaces for the articulation of radical feminist agenda, but in another sense, is also defined by fluidity and porousness of the public and the private spheres that can potentially make political claims-making towards feminist ends a reality.

For Southern women, ICT appropriation in the information society further needs to address their poverty and inequality through institutional transformation, so that in the emerging institutional realignments, women can forge new relationships within their social and economic contexts.

It is imperative for national governments to have policies that enforce public service commitments from communication corporates. As Sasha Costanza-Chock[15] puts it, "the communications industry relies on access to what should be considered public goods (spectrum and satellite orbits … state investments in research and infrastructure, and … copyright and patents.) Private communication firms exist and are able to make money hand over fist because governments offer them huge swaths of valuable common resources, and then enforce (using more public funds!) private monopoly control."

Also critical is the role of public finance towards communication infrastructure and other technology areas for reaching spaces that markets avoid, and a public policy vision of what ICTs can do for women beyond instrumentalising gender within pre-existing and flawed frameworks that do not answer to basic development priorities and the rights of the poorest women. Countries of the South need to direct public investment towards research to promote innovation and appropriate technologies, provide communication infrastructure for universal access, develop community-level institutions and capacities, and lead institutional transformation, especially in relation to the institutions that touch the lives of the poorest women – governance, health, social security, education, and livelihoods.

---

14 Such 'community radio' and 'community video' processes using digital technologies are employed in the *Mahiti Manthana* project of IT for Change, which works with *dalit* women's collectives.

15 Posting on the WSIS CS plenary mailing list (mailto:governance@lists.cpsr.org) on 5 March 2005. The message is archived at http://mailman-new.greennet.org.uk/pipermail/plenary/2005-March/005057.html.

References

Charkiewicz, Ewa. 2004. Beyond good and evil: Notes on global feminist advocacy. Isis International-Manila. http://www.isiswomen.org/pub/wia/wia2-04/ewa.htm.

Cheung, Denise M. Y. 2001. An empowering global discourse? Information Communication Technology (ICT), media and women's empowerment in the Beijing Platform for Action and its review. Paper presented at Vereniging Informatie en Internationale Oontwikkeling (VIIO) Seminar: Women and the Internet, January 18, in Maastricht, The Netherlands.

Gurumurthy, Anita. 2007. The local-global connection in the information society: Some tentative formulations around gender, development and social change. Paper presented at London School of Economics seminar series on Gender, work and life in the new global economy, May 14, in London, United Kingdom.

Isis International-Manila. 2004. CSOS wary of EU Commission's WSIS Phase Two proposals. *We!* 3, Manila: Isis International-Manila.

Isis International-Manila. 2007. People's communication for development. Manila: Isis International-Manila.

Jain, Devaki. 2001. The problematique of South-South (South-South movements). *Women in Action*, http://www.isiswomen.org/index.phpoption=com_content &task=view&id=674 &Itemid=200.

Ó Siochrú, Seán. 2004. Will the real WSIS please stand-up: The historic encounter of the 'Information Society' and the 'Communication Society'. *Gazette: The International Journal for Communication Studies*, Vol. 66, No. 3/4, http://sos.comunica.org/.

United Nations Economic Commission for Latin America and the Caribbean (UN ECLAC). 2003. Road maps towards an information society in Latin America and the Caribbean. Paper prepared for the Regional Preparatory Ministerial Conference of Latin America and the Caribbean for the World Summit on the Information Society a, January 29-31, in Punta Cana, Dominican Republic. http://www.itu.int/wsis/docs/rc/bavaro/eclac.pdf.

The Economist. 2005. The real digital-divide. The Economist, March 10.