Review of the 'Gender and Citizenship in the Information Society' (CITIGEN) Research Programme

26th - 28th April 2011, New Delhi

Suggested readings

1. Arnold M. (2007), 'The concept of community and the character of networks' , in *The Journal of Community Informatics*, 3 (2).
2. Bonder G. (2002), *From access to appropriation: Women and ICT policies in Latin American and the Caribbean* .
3. Curzon T. (2011, 31 January), *Cupid's freedom: How the web sharpens the democratic revolution*.
4. *Introduction*, in Fuchs C. (2011), *Foundations of Critical Media and Information Studies*, New York: Routledge.
5. Garcia Ramilo C., Jensen H., Kee J.s., Venkiteswaran G., Randhawa S. (2009), *Who is ruling the Internet? Gender sensitive research into Internet censorship as a central area of Internet governance*.
6. Gurstein M. (2011, 11 February), *Immiserating the Poor: We Have An App For That (Social Media vs. the iPhone in Egypt and a Kenyan slum)*.
7. Klein H. (2005), *The right to political participation and the information society* .

Organised by IT for Change and supported by the International Development Research Centre (IDRC)

The concept of community and the character of networks[1]

Michael Arnold

Dept. of History and Philosophy of Science, University of Melbourne, Australia

<mvarnold@unimelb.edu.au>

Abstract

Many case studies have examined Community Networks and we have at hand a good many rich and well grounded accounts of local experiences and outcomes as they have been observed in local circumstances. This sort of detailed, highly contextualized empirical work is essential to an understanding of contingent phenomena such as the performance of a Community Network. What we also need though, are theoretical approaches that are abstract enough to interpret the character and performance of differently situated Community Networks. The concept of community, the character of networks, and the implications of marrying the two, need to be teased out.

To this end, I suggest that Community Networks be understood analytically as a-modern hybrids that derive their ontological characteristics from a conflation of binaries. From this analytic perspective the Community Network is seen to be a sociotechnical assemblage that hybridizes the social and the technical, and not a set of technologies brought to bear on the social. The innovative feature of this particular form of sociotechnical assemblage, from an analytic point of view, is that it brings together "community" and "network" as both ontological concepts and as empirically observable phenomenon.

The characterization of the assemblage as a "community" but also as a "network" is thus critiqued, and the differences between these two abstractions are explored; and it is further argued, that the contrary ontology of the particular assemblage, manifest structures that are at once heterarchic as well as hierarchic.

The overarching purpose here is to address two problems: the neglect of theory and of abstractions in current ethnographic approaches, and the concomitant desire to develop theory and abstractions that are sensitive to the local and contingent nature of Community Networks. It is argued that an a-modern approach fits both requirements in so far as it identifies key abstractions as binaries, and embraces the coexistence of these binaries rather than arbitrating between them..

Introduction

A geographically based Community Network will typically enable the residents of a particular locale to communicate with one another; organize in groups both traditional and novel; access on-line government and council services; participate in educational groups and cooperatives; create multimedia content; publish personal and local community content; participate in local e-commerce; share informational resources with other groups and communities; develop IT skills, and engage in all sorts of other activities. In short, Community Networks appropriate ICTs, and configure them for use by communities. Though the technology is less than a decade old, hundreds of geographically based Community Networks are operating in North America, scores are operating in Europe, and several are operating in Australia. Whilst Community Networks have typically been installed through the collaborative efforts of community organizations, resident groups, local government authorities, corporate sponsors, university based research groups, and welfare and educational agencies, in a more recent trend towards commercialization, property developers are also installing community networks in new urban development sites in the United States, Australia and other places. In my country, Australia, for example, property developers such as the Stonehenge Group, Urban Pacific, Delfin, the Docklands Authority, and Lend Lease, have installed Community Networks in both "green-field" and high-rise housing developments.

The commercial rationale may be described as modernist in so much as it seeks the commodification of community as one response to 'the information society', and the not-for-profit rationale may be described as modernist in so much as it seeks to shape the subject (*a la* Foucault) into a form of self-governing communitarianism, and engineer the self-governing community as a "progressive" project. The rationale for building these facilities (in the case of the not-for-profit sector), and for selling them (in the case of the commercial sector), therefore brings together a mix of romantic communitarianism and modernist techno-utopianism, all given new energy by the contested but near universally

1An earlier version of this paper was read at the 2004 Community Network Analysis Conference, Building & Bridging Community Networks: Knowledge, Innovation & Diversity through Communication, Brighton, 2004. I would like to thank the delegates for their constructive criticisms. I also thank the anonymous reviewers for their thoughtful comments and suggestions.

accepted imperatives for survival and prosperity that gather under the headings “information society” and “knowledge economy” (see Fig. 1).

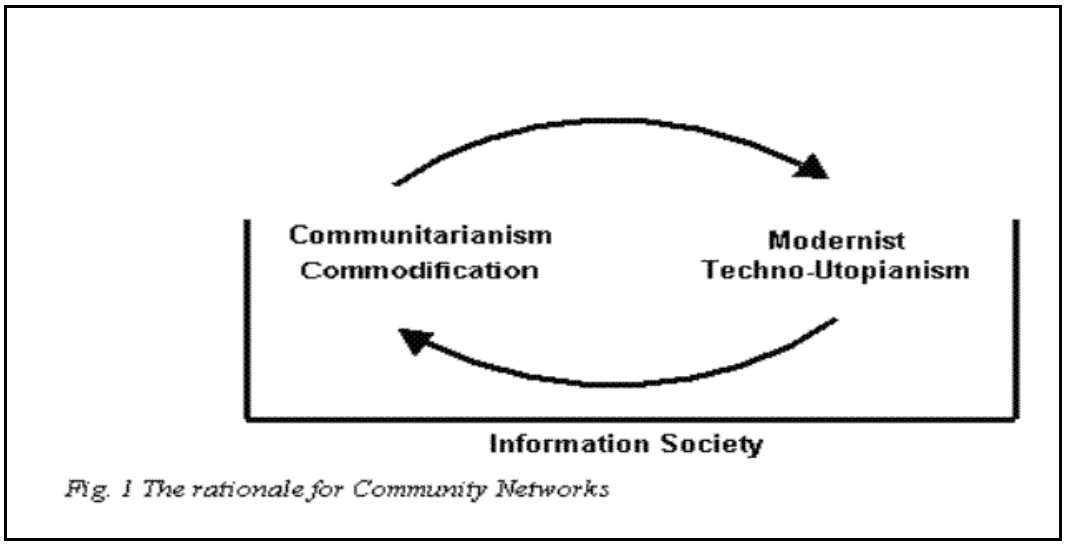


Fig. 1 The rationale for Community Networks

The techno-utopian and communitarian threads in the Community Network rationale are clear, and draw upon discourses that emphasize the role of technologies in securing a range of public goods. Whilst the great technologies of a previous era provided communities with piped water, sewerage systems, electrification and transport, so the technologies of the “information society” are providing an infrastructure for the public good. A glance through the Community Network literature will provide references to the role of contemporary technologies in establishing and maintaining bridging and bonding ties, learning communities, communities of practice, local and global connectedness, systems of trust, wider access to education and to employment opportunities, ameliorating the digital divide, facilitating civic engagement and social participation, and providing more efficient access to government services while enabling a more participatory form of democratic involvement. The centuries-old project of improving our social conditions through the employment of technology continues. In the case of the commercial Community Networks, all of this applies in equal measure, but there is also a parallel profit-seeking imperative that feeds into the need for product differentiation and market advantage in land and house sales. Here, the commercial utility of broadband, the cultural appeal of “high-tech modernity”, the promise of differentiated access to informational resources, and above all, the very strong “saleability” of a “good neighborhood”, and a “strong community” – packaged and delivered through ICTs – suggests that Community Networks can commodify community, and can be important in the successful marketing of urban property developments.

An exegesis of the “information society” thesis and the substantial critique of that thesis mounted by Webster and others (F. Webster, 1994; Frank Webster, 1995), is beyond the scope of this paper, but the representation of our socio-economic condition as being in some fundamental way information based, clearly provides a foundation for the Community Network project.

Case studies have examined many local examples of not-for-profit community intranets, and have provided well-grounded accounts of their effect in the construction of community, the reconstruction of community, and the strengthening of community. In America, these accounts tend to be read in terms of social connections, social capital, and the on-going viability of traditional community institutions such as clubs, churches and school groups (see for example (Wellman, 1999; Wellman & Haythornthwaite, 2002). In Britain, studies are more likely to be concerned with social equity variables – such as education, employment and health – as they present themselves in particular locales (Brixton, or Grimethorpe for example), or among an otherwise identifiable group (traveling people, single mothers and so on (Sherman, 1999). Studies that examine commercial systems are much less common (for exceptions see (Arnold, 2002, 2003; Arnold, Gibbs, & Wright, 2003). The strength of all of these studies is their ethnographic detail, and their close focus on local sociological inputs and outcomes. But whilst valuable strategies emerge from these case studies – such as the need to genuinely engage with existing community organizations on their own terms, to look for local champions for the system, and to cultivate local voices in decision making. A weakness in the research to date is the absence of theoretical models or abstractions that avoid the conceit of talking in terms of generalisable laws, but nevertheless retain the ambition of talking in terms of concepts that are appropriated from the indeterminate nature of contemporary networks, while remaining adaptable and robust enough to transfer across sites, and at the same time retaining analytic purchase.

An A-modern Approach

As Community Network research emerges as a more mature cross-disciplinary field, and builds from grounded case studies to integrative theory building, theoretical differences become more important to debate. To this end it is argued here that community networks be understood analytically as a-modern hybrids that derive their characteristics from a

conflation of binaries.

That is to say, Community Networks are both technical devises *and* social arrangements; they invoke the identity of a network *and* a community, and manifest both hierarchic *and* heterarchic structures.

I think it is important not to dissolve these contradictions by arguing them through to middle ground, or by arbitrating between them and dismissing one of the alternatives as being "more true" or a more accurate representation than the other. Holding on to contradiction runs counter to the modernist episteme, which, over 250 years, has sought to dissolve contradiction and reach unambiguous clarity through the construction of three core binaries, and the privileging of one side of the binary in each case (Wise, 1997). These core binaries are, the bifurcation of time and space, (privileging time), subject and object, (privileging subject), and cause and effect, (privileging cause). Having made this crucial move, it becomes possible for the modernist to align either the technical or the social with cause, and its binary alternative with effect; either the machine, or the human, with subject, and its binary alternative with object; and either diachronic event sequences (time) or context (space) with cause, and its binary alternative with effect. In this bifurcation, some things are drivers and other things are passengers, some things lead and other things follow – when a more productive analytic strategy may be to resist the bifurcation altogether. Such a strategy is referred to here as "a-modern".

I think that an understanding of Community Networks in particular, and our relationship with technology in general, is best pursued not by seeking to arbitrate opposing positions on the above, or by seeking middle ground compromises between opposing positions, but by attending to the tensions and stresses that emerge in the co-presence of contradictory forces. In this sense incoherence and inconsistency is important to maintain in an analysis that moves beyond the case study!

This attempt to analyse Community Networks in terms of conflated binaries, rather than through a simple empiricism, or through modernist dissolution or arbitration, draws upon an a-modern approach developed within Science and Technology Studies (STS) (B. Latour, 1993; Bruno Latour, 1999; J. Law & Hassard, 1999), although, ironically, STS has also been criticised for an excessive dependence on case studies (Winner, 1993). As a discipline, STS began with studies of stirrups, microbes, bicycles, lathes, vacuum pumps and power stations, and has been further developed by studies of Brazilian rainforests, scallops, electric cars, cybernetic organisms, and African numbering systems. But in the course of following the heterogeneous engineers and actors of all kinds, as they seek to enrol one another, problematise goals, purify systems, create monsters, configure users, employ boundary objects, materialize imaginaries, and stabilize heterogeneous networks, Science and Technology Studies has moved our understanding, not just of our relationship with technology, but of the epistemological approaches to an understanding of our relationship with technology. Community Network studies have similarly relied on case studies that are strong empirically, but have not yet moved forward theoretically. The approach proposed in this paper falls short of this ambition, but gestures in that direction by drawing attention to some of the implications of this picture of a Community Network as a conflation of contradictions – as social and technical, a network and a community, and hierarchic and heterarchic. I begin with a discussion of the social and the technical.

The Social and the Technical

A Community Network assembles together a whole host of things – some of them commonly identified as social (community groups, individuals, commercial organizations, arms of government) and others commonly identified as technical (application software, web-servers, work stations). Having made a distinction that is so much part of the intellectual and cultural landscape as to pass unremarked, the technology can be placed front and centre in a privileged position. Of course, people involved with Community Networks are far too sophisticated to assume that ICTs of themselves are of particular benefit to communities, but still, it is the technology that is understood to be the facilitator, the catalyst, the cause of effects, the means to an end; it is the technology that we focus on, and that distinguishes the Community Network project from other community projects, and it is the social, read as the *community* in the "community network", that is the object of this facilitation[2]. The forementioned modernist separation and categorization of phenomena as either cause or effect is thus used to structure the relationship between technology and society (See Fig. 2).

2Although it is not the place to pursue it here, it doesn't really affect the argument if one chooses to reverse the respective roles of the social (community) and the technical (network). See (Bruno Latour, 1999)

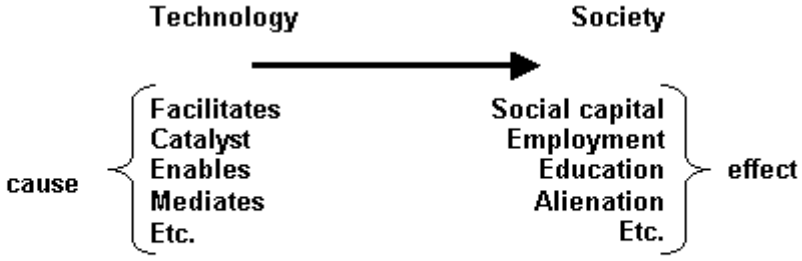


Fig. 2. technology drives progress

And so, from a global perspective, the World Summit on the Information Society is concerned with ameliorating the digital divide, and at the local level we are concerned with creating and sustaining Community Networks. Both take as their departure points an acceptance that ICT use is central to social advantage, and that social disadvantage is best addressed through ICT use (in preference to alternatives). Each accepts that use of high technology is normative, that it causes (facilitates, catalyses, mediates) positive outcomes, and *a priori*, non-use is a disadvantage to be remediated. The social disadvantage may be unemployment, or ill health or social isolation, but these are addressed through a filter that reads society as the information society, the economy as a knowledge economy, education as e-learning, health as medical informatics, and in all this, accepts the late modernist position that reads technology as the driver of progress. We thus work with technology and through technology to move the reality of our social existence closer and closer to the desires we have for that social existence (see Fig. 3).

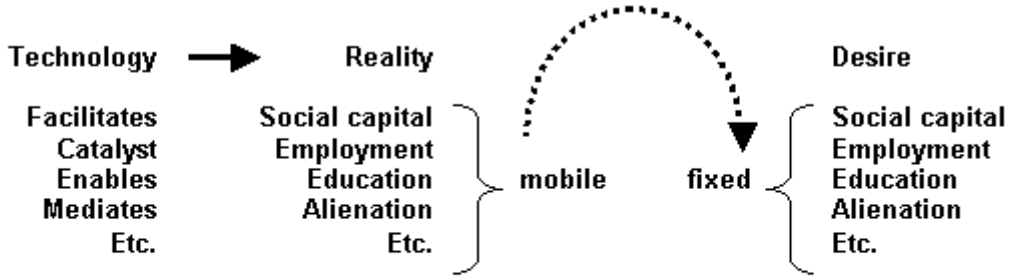


Fig. 3: the modernist paradigm; technology moves reality closer to desire.

A model that does not separate the technical from the social shifts the ground upon which we stand to think about the world, and advances our aforementioned project to be ambitious but not conceited. A given technology – TV, the production line, the Internet, the Community Network, is not a good thing for society (or community), nor a bad thing to be resisted. Rather, the hybridisation of the social and the technical changes the basis upon which we make a judgement about social goods and about outcomes. A Community Network is neither good nor bad for social connectedness, alienation, access to job markets, education, or whatever; rather, it changes what it is to be connected, alienated, in the job market, or educated. There is no ground that stands still to enable a pre and post assessment to be made. The question for researchers and practitioners then changes at all sites. The world is enframed in a different way. Reproductive technologies do not just provide a different means to the same end – they change our frame for situating maternity and paternity, and the ontology of mother, father, and family. Email doesn't provide a different means to the same end; it changes our frame for situating written correspondence. The mobile phone doesn't provide a different means to the same end, it changes our frame for situating mobility (in space) and fixity (in the space of flows), and what it is to be connected. Rather than assessing the "good" or "bad" effects of the technical on the social in terms of shifting reality closer to desire, one looks at *how the ground is changing* at this site as new sociotechnical assemblages cohabit the lifeworld and shift both reality and desire. The a-modern question is not how to assess and maximise the good use of ICTs in communities, but how ICTs in communities are changing what good is (see Fig. 4).

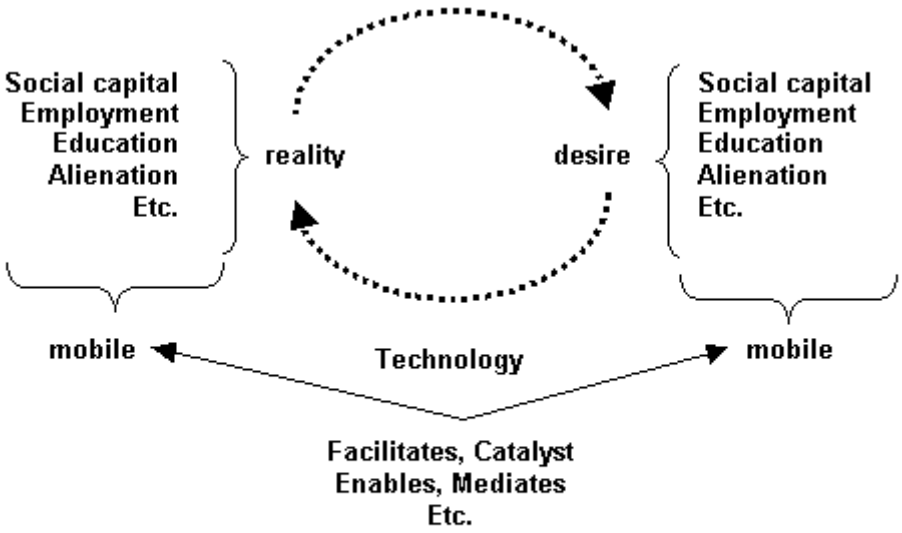


Fig. 4: the amodern paradigm; technology changes both reality and desire.

The Network and the Community

As Rheingold famously remarked, when a computer *network* is used for *social* purposes, it becomes a *social network* (Rheingold, 1993). The network metaphor, as used in the term "Community Network", invokes images of a web or net, whereby nodes (people and/or computers) are connected together to constitute a larger fabric – a larger entity in the sense that a local area network is a network, or the rail system is a network (see Fig. 5). The metaphor thereby foregrounds and privileges the connecting infrastructure rather than the nodes, or in modernist terms, the emphasis is on the "space" of connections, not the "time" of connecting.

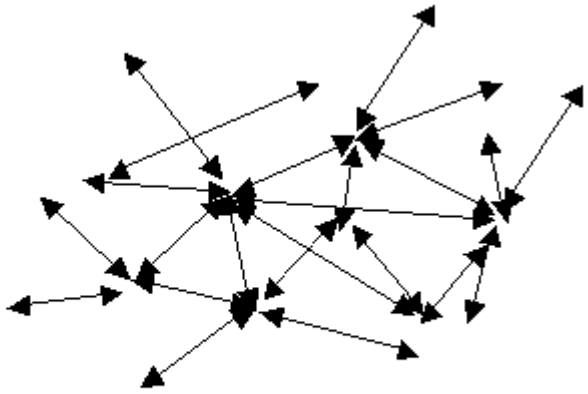


Fig. 5: community as a network.

But social networks are not composed of material links in the way computer networks, rail networks or electricity networks are. Our social performances are interactive, collective, responsive, but they are not connected by stable threads, tracks, lines or wires – though crucial to the Community Network metaphor, the Internet is nevertheless immaterial (Pollner, 2002). Our social performances (the *community* part of "Community Network") consist of a multitude of distributed, local, transient, quasi-independent acts – reflexive, reciprocal acts to be sure, but still, a collection of individual acts that only from an analytic perspective – not a phenomenological perspective – consist of something more structured. Despite the metaphor, a social network doesn't exist as an enduring material artifact, it is only there by virtue of a cascade of articulated sociotechnical performances that make it there, and will only be there so long as these actors choose to act. There are no lines between the nodes of the network, there are only the actions of the "nodes" – such as responding to email, posting to a list, attending a workshop, chatting in the corridor – that are patterned or structured in the abstract, not as specific material phenomena. The research emphasis is thereby on the social actors and their actions, and any connecting infrastructure recedes into the background. In modernist terms, the emphasis is on the "time" of action and reaction, not on the "space" of connecting infrastructure (see Fig. 6).

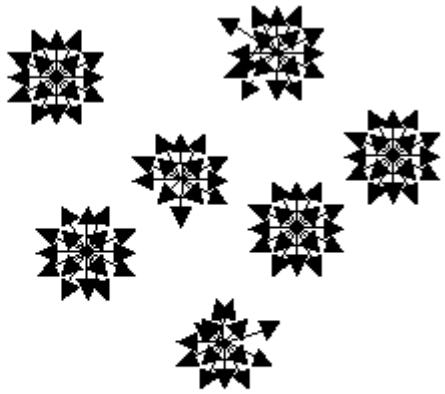


Fig 6: community as distributed performances.

Modernism thus throws up two visions of a community network, one emphasizing the structural links between nodes, the technical infrastructure in space; and the other emphasizing the performances of the nodes, the social interactions in time. I think it fair to say that most researchers in the field favour the latter 'social' model rather than the former 'determinist' model.

Two conclusions might be drawn in the context of researching Community Networks, if one accepts this.

Firstly, if the Community Network is built continuously by these acts, not by the community sector consortiums or property developers that engineer the network as infrastructure, and certainly not by the network as computer technology, the centre of attention is necessarily dispersed and distributed to the actors – to the network's multitudinous "nodes" – where the action begins and ends. The focus is on community *networking* (as a verb; a doing thing), rather than a Community Network (as a noun; an infrastructure thing). The ontology of community changes – from one that privileges space (an infrastructure, a context), to one that privileges time (events).

Secondly, if it is so that a sociotechnical network is the abstract reference to an ongoing cascade of individual acts, and not a network in the sense of a LAN or a railway, and these acts flow from the actors so to speak, not from space, then Wellman's argument contrasting social *networks* with community *groups* gains purchase (Wellman, 1999). A network in this context is not a community. A network is extensive, with indeterminate boundaries. A network is ramified and dynamically maintained through the repeated actions of loosely coupled individuals; it is not a default position. A network is transient and shape-changing – not historical. A network is created by the subjectivity of its members, not by the objectivity of any shared condition. From this perspective the Toennesian notion of a located *Gemeinschaft* community is outmoded, if indeed it ever applied. The notion of a geographically based community, constituted in recognition of common identity, interests, and obligations, gives way to an "ego-based" or "personal network" construction of community. In this construction, a social network, one's community, is not a shared public good held by all in common, but a private asset, a personal store of social capital actively built and maintained by individuals to suit their own individual sense of identity, desires, needs and interests.

And it follows from this that networked relations are distributed differentially rather than uniformly. That is, some individuals establish and maintain stronger community relations than others, and some individuals establish very few, and are socially isolated (see Fig. 7).

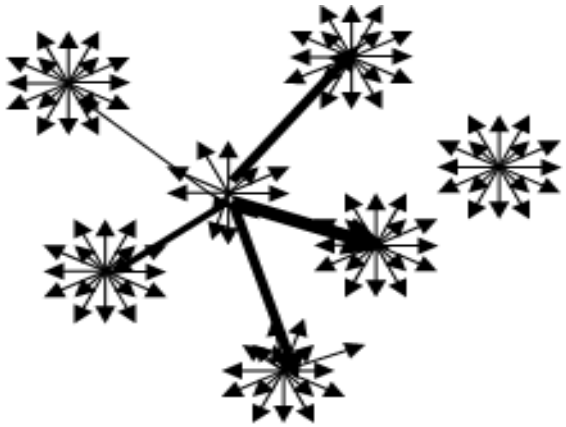


Fig. 7: community connections occur differentially.

It is interesting to note that links between actors in the network are not uniformly distributed, but, in the formal terms of network mathematics, the links follow "power laws" and are "scale free" (Barabási, 2002). Whilst Figure 5 implies a network architecture that is roughly egalitarian, in that links are randomly or uniformly rather than preferentially distributed, the lessons of power laws are immanent in Figure 7. In simple terms, power laws seek to model the fact that network links are highly clustered, not evenly distributed. In the case of the Internet as a whole for example, in a sample of 203 million web pages, 90% had 10 or fewer links pointing at them, whilst a few were referenced by close to one million other pages (Barabási, 2002). According to a maxim familiar to many in the Community Network project, the rich get richer, whether the currency is money, web page connections, or community resources. If this were not the case we would expect that the community connections in any given population would follow other normally distributed phenomenon, where most individuals have similar numbers of links, and where only a few are extremely high or extremely low. (see Fig. 8)

Fig. 8 a normal distribution

But this is not the case in scale-free networks, where power laws predict that a few nodes will have a great many links, whilst most nodes will have very few (see Fig. 9).

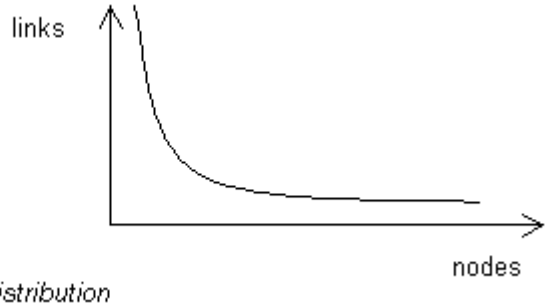


Fig. 9 a power law distribution

This representation of community networks as private assets has little in common with traditional representations of community, and little in common with the conceptualization of community implied by the Community Network project.

The rise and rise of individualism as a political resource, and the actions of the market as the arbiter of societal relations – now read as relations between individuals – has done terrible damage to other named groupings such as Society, Union, Class, Neighbourhood, Gender – even Nations, Races and Religions. In many first-world, post-war societies, these forms of defined collective interest have been subject to sustained criticism. First the Left and more recently the New-Right or "neo-cons" have argued positions which attacked public or communal activity on the grounds of both efficiency and legitimacy (Kumar, 1992), and in the 1980's in particular, the withdrawal of "the public good" as a target for social policy was speeded by a neo-conservative, New-Right or economic rationalist ideological hegemony. The popular ethos over this time has been to increasingly demand private consumption, mediated through the market, for the satisfaction of personal rather than communal ideals or objectives (McLean & Voskresenskaya, 1992). The public institutions and public utilities established in the last half of the 19th century and the first half of the 20th century to provide education, power, health services, transport, communications and so on, were informed and constituted by a modernist discourse which centred on the virtues of centralised decision-making, public service, public good and public responsibility. These have in recent times become increasingly fragmented, decentralised, privatised, self-managing and entrepreneurial, and are redefining their mission in ways which do not privilege broadly conceived social good, except as a derivative of market performance. Institutionalised social relations have thus been reconstituted around a discourse that valorises private benefit, individual responsibility and consumer sovereignty. In the sphere of personal social relations the individual is no less privileged, and constructions of needs, rights, desires, responsibilities, tastes, and opinions are all read as attributes of individual agency. Digital technologies are of course deeply implicated in the construction of this changed ground. We build our own community networks, and within these networks obligation and reciprocation coexist, often uneasily, with individualism – which remains the dominant mode of relations. Indeed, "[n]o longer do *we*, as members of the group, belong to the community, rather the community belongs to *us*." (Jones, 1997)

Yet "community", read ontologically as *Gemeinschaft,* is often called upon to serve ideological and rhetorical purposes, where other collectives or named groupings are not.

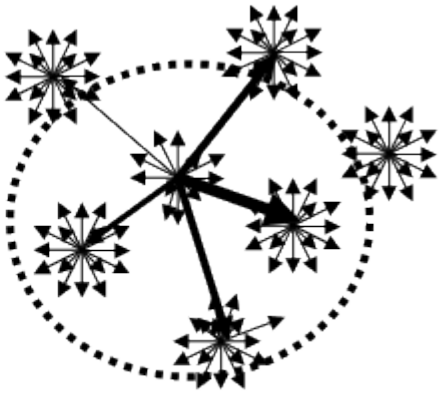


Fig 10: community as a bounded network

At a policy level, and in terms of contemporary ideology, a Community Network may be represented as a bounded collection of "ego-based" social networks. A Community Network is bounded in so much as the not-for-profit collective or the property developer "scopes" the Community Network, and defines its target market. A Community Network project creates a group, makes provision for an infrastructure, limits ramified access by creating boundaries, presents the group space as an ongoing default for all, founded on the objectivity of shared conditions. Thus community as a linked group, as communal infrastructure, is rescued as a research focus, a context for practice, a policy objective, and as an ontological being. At the same time though, the Community Network is recognised in individual action, in distributed social performance, and in a multitude of private assets. The modernist Community Network project is thereby consistent with the 50 year political drift from public service, funded by the taxpayer, and provided through central governmental agencies, to the position that devolves service provision to the private and non-profit sectors, and asks that people and communities bootstrap their own way out of their difficulties through the limited infrastructure provided.

Meredith, Ewing and Thomas make the point very well in their study of an Australian neighbourhood renewal project, and its implications for governance (Meredith, Ewing, & Thomas, 2004). The authors remind us that the shift away from the central role of state agencies and professionals to community groups, volunteers and not for profit groups is a new response to an old problem of legitimising governance. The modernist state is founded on rationality, and needs to provide conditions of prosperity and security, at least at certain minimum levels. This in turn, requires it to penetrate and assert influence over civil domains that are beyond its immediate reach – commercial, familial, domestic and social domains.

Last century's answer to this challenge was the school, the hospital and the prison provided by the State, and this century's answer is the Community Network we build ourselves. Systems of education, health, electrical power, water, transport, and justice were all envisaged as common social infrastructure – in a sense, as scaled networks accessible to all (except perhaps at the extremes) – and thus exercising an egalitarian and commonly civilizing influence. Arguably though, the education system has operated as a vehicle for the creation and expression of social differentials, and arguably, its patterns of access and benefit are better described by power laws than by normal distribution. Though they don't use these terms, Graham and Marvin have reached similar conclusions in respect of water, transport and other infrastructures (Graham & Marvin, 2001).

By highlighting these modernist binaries – events in time and space, networked individuals and grouped community, nodes and links, performance and structure – and by pointing to both ends of the binary rather than seeking to reconcile or arbitrate between them, the a-modern approach is able to pursue the sort of critical analysis illustrated above. And even if the reader does not consider the critique to be powerfully persuasive, it may be allowed that the approach opens up ground for the construction of analysis that has the potential to be powerful and persuasive.

The Hierarchic and the Heterarchic

Whilst a Community Network articulates and hybridises the contradictions of the social and the technical, the community group and the networked individuals, an a-modern approach reveals that it similarly articulates and hybridises hierarchy and heterarchy. It is the material arrangements, the technical mediation of the social interaction that is hierarchical, whilst the social arrangements emergent through this technical mediation give rise to heterarchy.

Electronic space is meticulously structured in a detailed and rigorously hierarchical fashion. Flows of digital signals have a structure determined at various levels, from the deeply embedded structures of logic gates, to operating systems and machine-language architecture, to the surfaces of interface design. In this sense digital flows can be said to have a material character that Ostwald (following Deleuse and Gualtieri) calls the "arborescent schema" (Ostwald, 1997). High modernist architecture, modernist organizational and management theorists, and the designers of many computer environments share this common conceptual framework, whereby the world is represented as an inverted tree or semi-

lattice structure which is hierarchical (rather than say, rhizomatic), and is binary rather than analogue (see Fig. 11).

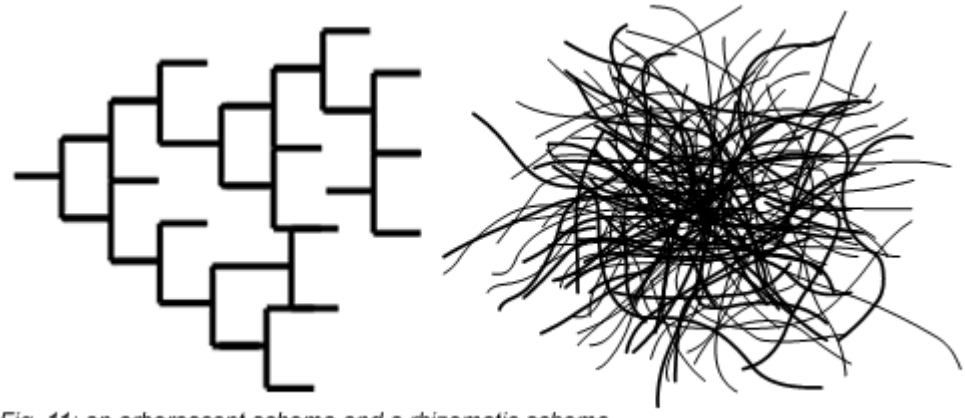


Fig. 11: an arborescent schema and a rhizomatic schema

An arborescent schema is a form of power that functions by situating its constituent entities in hierarchical relation to one another, some near the trunk, others out on the edge, and in so doing, positions subjugation and domination. As Ostwald argues, arborescent structures are subject to critical attack. They manifest a desire to discipline movement and location on the basis of a reductionist categorisation embedded in the very structure of the space inhabited by people, or data. In Bogue's words

> "Arborescences are hierarchical, stratified totalities which impose limited and regulated connections between their components. Rhizomes, by contrast, are non-hierarchical, horizontal multiplicities which cannot be subsumed within a unified structure, whose components form random, unregulated networks in which any element may be connected with any other element." (Bogue 1989, p.17)

In the case of the Internet for example, the expression of a will to power that suffuses latent arboreal structures is evident at a number of levels. At the global level Google, Myspace, Microsoft, Yahoo, Amazon and company, occupy a position near the centre of the "Bow Tie" (Broder et al., 2000), on the main trunk of the arboreal structure. These companies are thus passage-points for huge volumes of electronic traffic, and potentially discipline that traffic by structuring the "space of flows" from there. At the other extreme, one might take a point far out on the extremity, where the leaves of the tree consist of, say, postings on a Community Network site. These too are subject to the discipline of an arboreal structure where lateral links are problematic, and each post is an appendage of the node to which it is attached, which in turn has its place on the hierarchy. Postings and web pages neither exist on their own terms (but in hierarchical connection to other nodes and pages) nor on interdependent terms (as say, a latice of equally connected contributions).

An online discussion conducted via email for example, is the hierarchically structured, serial exchange of textually expressed monologues and a "Bulletin Board" type of on-line discussion makes the arborescent hierarchy clear in its graphical representation of threads. As a network of postings it is scale-free and follows power laws. In rough terms therefore, (as any subscriber will confirm), 20% of participants make 80% of postings, and 20% of postings attract 80% of responses, while 80% of postings just sink without trace, and drift in cyberspace unread and unanswered, like notes in bottles, floating on the sea (Holmes, 1997).

In addition to being clustered, listservs and discussion groups display a valence for order and discipline in so much as they define and bound areas of social interest. Each discussion group is a branch, usually organised around a quite narrow topic, stemming from a larger branch supporting many narrow topics, stemming from a still larger branch, all the way to a handful of main topic categories. Ostwald aptly describes this arrangement as bureaucratic; as an isomorph for the space of social interaction, it arguably fails, and it is difficult to characterise it as a space convivial to community primitives as traditionally conceived, though it is quite consistent with community relations as private social assets.

Social relations in such an ordered space are goal-oriented, purposeful, and disciplined by the space as well as the social norms of the group, such that our presence in the same discussion group has something of an instrumental character about it. I may be interested in fish and may converse with you on *rec.aquaria.freshwater* in a hobby centre in a Community Network, but it is the Guppies I'm interested in, not you. On *WilliamstownOnLine/GoodBuys* it is the price of the coffee and the quality of the fruit that is interesting, not you. In contrast, when we meet at the tram-stop and exchange words about fish tanks and fruit, it is not the fish tanks and fruit that is at the heart of the exchange, it is the exchange itself. The social exchange is phatic, not instrumental. The exchange involves a "transcendence", a "beside-each-otherness" (Jones, 1997), which takes it beyond its subject matter or informational content. In the world of ICTs the space of social relations is ordered, rational, ruled – reflecting a heritage and an architecture that is inspired more by Le Corbusier's Stalinist fantasies than the Toennesian fantasies of the village green, or Habermas' coffee house. The space that was designed for calculation, data-storage, file transfer and remote computer use then became a space for the management of a work-force, the transfer of funds, and the commercial exchange of goods and services, and is now a space for communities.

So, a Community Network shares hierarchy with its digital cousins and ancestors, but, as I shall argue, its sociotechnology also gives rise to heterarchic arrangements.

The conceptual foundations for the notion of a heterarchy were laid down in the natural sciences and in management theory (Grabher & Stark, 1997), and have since found wider application. Unlike a hierarchic system which rises to a single point, has a single trajectory, or equilibrium, or centre of gravity, (depending on the preferred metaphor) a heterarchic system has many such points (Grabher, 2001; Grabher & Stark, 1997). Rather than a single trunk in a hierarchical tree structure, a heterarchy is rhyzomatic, and has a number of points that act as centres. In the case of a Community Network, these clusters of circulation may be individuals, projects, or issues, for example. Each is at the centre of the whole system for the actors that circulate around it – and there is therefore more than one point of circulation in any given system. A heterarchy is a self-organizing, autopoietic system, and the centres of action are emergent in action, not established structurally. It *is* what it *does*, and what it does is structurally underdetermined (see Fig. 12).

Fig. 12: a heterarchy

In these circumstances, where centres of social action, resourcing, and decision-making are multiple, the balance between integrative and disintegrative processes, between conditions of stability and instability, is fine. Heterarchies are characterized by high tolerance for diversity, evident in the presence of multiple centres, and provided by the presence of multiple centres. This plurality allows resources to be devolved rather than concentrated; it allows energies and actions to head in different directions simultaneously; and it allows different priorities, objectives and strategies to coexist. But as (Grabher, 2001) asks, how much inefficiency can the aggregation of centres tolerate for the sake of adaptability and heterogeneity, without sacrificing capacity for production?

These tensions between the relative efficiency and stability of a "top down" hierarchy, and the "bottom-up" groundedness and flexibility of a self-organizing heterarchy, are played out in the sociotechnical space created by Community Networks. Policy makers, local governments, funding agencies, ICT system designers and Community Network coordinators have a "top down" interest in stability, coherence and efficiency across the system, whereas users, community activists and local groups have a "bottom up" self-defined interest. Holding on to this binary and playing out the tensions that emerge is one manner in which the Community Network shapes itself, and is one manner in which it can be understood, rather than privileging one over the other. Each must be embraced simultaneously.

Conclusion

To get a grip on a Community Network as a social-technical, network-community, hierachic-heterarchic hybrid, is to focus an assessment on the hybridity itself. That is, the implications of the Community Network flow from the reflexivity of binaries – not from the effects of either one separately, or the effects of both in parallel; rather it flows from the hybrid "monster" (John Law, 1991) that emerges from a conflation of the two. A Community Network is not (technical and network and hierarchic), or (social and community and heterarchic), and is not in some respects one, and in other respects the other; in some contexts one, and in other contexts another. Rather it is in all respects a hybrid, in so much as the social/technical, network/community, and heterarchy/hierarchy are codependent in the same system.

So, a community Network should not be theorised exclusively in terms of a technology that moves a society towards a good, or as a society moving technologies towards a good. If seen as a hybrid, everything changes – including what is good. Moreover, a Community Network should not be theorised as a public good infrastructure supporting *Gemeinschaft* community. In an important sense a Community Network is a resource for building private assets.

Further, a Community Network should not be theorised as hierarchical, (though its sociotechnical structure is), nor should it be seen as heterarchical, (though its sociotechnical structure is). Rather, its peculiar characteristics arise from

both.

This a-modern theoretical strategy does not lead to a simple answer – either utopian, dystopian, or in the middle. Instead, it argues that a Community Network, like all technologies, enframes the world: that is to say, it does not answer this or that question, satisfy this or that demand, extend this or that capacity. Rather, technologies such as Community Networks work at a more fundamental level; they enframe the world such that the question is changed along with the answer, the need is changed along with its gratification, and direction is changed along with the mechanism. The calculator or the word processor, are not more effective, efficient or convivial methods of doing mathematics or writing – they change what it is to do mathematics or to write. The Internet does not provide a more efficient way of doing the same things – it does different things.

A Community Network is not just a means of meeting desires, it also changes the cultural, social, economic and emotional frames that give rise to desire, and situate desire. A Community Network is thus metaphysical, and not simply instrumental, or technical, or social, or hierarchical, or heterarchical.

References

Arnold, M. (2002). Key4Building meets Habermas, Foucault and Latour. In S. A. Clarke (Ed.), *Socio-Technical and Human Cognition Elements of Information Systems*. Hershey, PA: Idea Group Publishing.

Arnold, M. (2003). Intranets, Community, and Social Capital: The Case of Williams Bay. *Bulletin of Science, Technology & Society*, 23(2), 78-87.

Arnold, M., Gibbs, M., & Wright, P. (2003). Intranets and the Creation of Local Community: 'Yes, an intranet is all very well, but do we still get free beer and a barbeque?' In M. Huysman, E. Wenger & V. Wulf (Eds.), *Communities and Technologies*. Dordrecht, Boston, London: Kluwer Academic Publishers.

Barabási, A.-L. (2002). *Linked : the new science of networks*. Cambridge, Mass.: Perseus Pub.

Bogue, R. (1989) *Deleuze and Guattari*. London: Routledge.

Broder, A., Kumar, R., Maghoul, F., Raghavan, P., Rajagopalan, S., Stata, R., et al. (2000). *Graph structure in the web*. Retrieved Feb, 2004, from http://www.almaden.ibm.com/cs/k53/www9.final/

Clement, A., Gurstein, M., Moll, M., & Shade, L. (2003). *Canadian Research Alliance for Community Innovation and Networking*. Retrieved June, 2004, from http://www.fis.utoronto.ca/research/iprp/cracin/CRACIN.pdf

Grabher, G. (2001). Ecologies of creativity: the Village, the Group, and the heterarchic organisation of the British advertising industry. *Environment and Planning A*, 33(2), 351 - 374.

Grabher, G., & Stark, D. (1997). Organizing Diversity: Evolutionary Theory, Network Analysis and Post-Socialism. In Gernot Grabher & David Stark (Eds.) *Restructuring networks in post-socialism : legacies, linkages, and localities*. Oxford: Oxford University Press.

Graham, S., & Marvin, S. (2001). *Splintering urbanism : networked infrastructures, technological mobilities and the urban condition*. New York: Routledge.

Holmes, D. (1997). Virtual Identity: Communities of Broadcast, Communities of Interactivity. In D. Holmes (Ed.), *Virtual Politics: Identity and Community in Cyberspace* (pp. 26-45). London - Thousand Oaks - New Delhi: SAGE Publications.

Jones, S. G. (1997). The Internet and its Social Landscape. In S. G. Jones (Ed.), *Virtual culture : identity and communication in cybersociety* (pp. 7-35). London: Sage Publications.

Kumar, K. (1992). New Theories of Industrial Society. In Brown & H. Lauder (Eds.), *Education for Economic Survival: from fordism to post-fordism?* London and New York: Routledge.

Latour, B. (1993). *We have never been modern* (C. Porter, Trans.). New York: Harvester Wheatsheaf.

Latour, B. (1999). *Pandora's hope : essays on the reality of science studies*. Cambridge, Mass.: Harvard University Press.

Law, J. (Ed.). (1991). *A Sociology of monsters : essays on power, technology, and domination*. London ; New York: Routledge.

Law, J., & Hassard, J. (Eds.). (1999). *Actor Network Theory and After*. Oxford: Blackwell.

McLean, M., & Voskresenskaya, N. (1992). Education Revolution from Above: Thatcher's Britain and Gorbachev's Soviet Union. *Comparative Education Review*, 36(1), 71-90.

Meredith, D., Ewing, S., & Thomas, J. (2004). Neighbourhood Renewal and Government by Community: The Atherton Gardens network. *The International Journal of Cultural Policy*, 10(1).

Ostwald, M. J. (1997). Virtual Urban Futures. In D. Holmes (Ed.), *Virtual Politics: Identity and Community in Cyberspace* (pp. 125-144). London - Thousand Oaks - New Delhi: SAGE Publications.

Pollner, M. (2002). Inside the Bubble: Communion, Cognition and Deep Play at the Intersection of Wall Street and Cyberspace. In S. Woolgar (Ed.), *Virtual Society? Technology, Cyberbole, Reality* (pp. 230-246). Oxford: Oxford University Press.

Rheingold, H. (1993). *The Virtual Community: homesteading on the electronic frontier*. Reading, MA: Addison Wesley.

Sherman, C. (1999). Local Connections: Making the Net Work for Neighbourhood Renewal. Unpublished manuscript, London.

Webster, F. (1994). What Information Society? *The Information Society*, 10, 1-23.

Webster, F. (1995). *Theories of the information society*. London and New York: Routledge.

Wellman, B. (Ed.). (1999). *Networks in the Global Village*. Boulder, Colorado: Westview press.

Wellman, B., & Haythornthwaite, C. (Eds.). (2002). *The Internet in Everyday Life*. Oxford: Blackwell Publishing.

Winner, L. (1993). Upon Opening the Black Box and Finding it Empty: Social Constructivism and the Philosophy of Technology. *Science, Technology and Human Values*, 18(3), 362-378.

Wise, J. M. (1997). *Exploring Technology and Social Space*. Thousand Oaks: Sage Publications.

EGM/ICT/2002/EP.3
29 November 2002

United Nations
Division for the Advancement of Women (DAW)
Expert Group Meeting on
"Information and communication technologies
and their impact on and use as an instrument
for the advancement and empowerment of women"
Seoul, Republic of Korea
11 to 14 November 2002

From access to appropriation: Women and ICT policies in Latin American and the Caribbean

Prepared by

Gloria Bonder *

* The views expressed in this paper, which has been reproduced as received, are those of the author and do not necessarily represent those of the United Nations.

INTRODUCTION

Access to information, to knowledge and the interaction between cultures and social groups have never been so within the reach of humanity, nor as valued as in the last decades. The continuous innovation and global spreading of Information and Communication Technologies (ICTs) appear like a fundamental resource in order to reach these goals and inaugurate a change of era known as **Information Society** or **Knowledge Society**.

However, in its current phase of development, we must clearly differentiate the potentialities (informative, educational, cultural, political, economic, etc.) offered by these technologies, from their manifestations and actual impact on the various contexts and social groups.

This type of analysis is still at a beginning stage in the LAC Region. Therefore, the understanding of the role currently played by these technologies in our societies is usually based on impressions, "good wishes" and, in the best of cases, on some partial studies. This already poses a first problem at the time of evaluating the current situation in terms of access, appropriation, uses and differential impacts of ICTs in the Region and, based on this information, suggesting and implementing effective strategies and policies to ensure full gender equality in this field.

For that reason, giving priority to **investigation for action** is**,** in our opinion, a fundamental challenge in this phase of ICT expansion in Latin America. This will provide us with reliable data to get round two equally false beliefs: on the one hand the idealization of their capability for transforming economy, culture, political life and for leveling all sorts of disparities, including gender; and on the other hand their *"demonization"* due to their alleged negative influence on the cultures, the subjectivities and the lifestyles of the LAC societies.

In the meantime, we share Burch's belief that "Information technology obviously will not solve the world's problems. But wisely deployed and developed, it has proven to be a powerful tool for advancing social causes. One of the social groups that has been most dynamic in using this technology innovatively for social progress, is the women's movement; and in many aspects, the South has exerted leadership in this process" [1]

In this document we will present basic information on the expansion of ICTs in the Region, stating the major gaps. We will also present the results of some studies, and of a recent electronic consultation, which give evidence of the progress, obstacles and recommendations for policies and programs that strengthen gender equality in and through ICTs.

[1] Burch, Sally (1997): *Latin American Women Take on the Internet*, (http://www.apcwomen.org/netsupport/articles/art-01.html)

LATIN AMERICA: CONFLICTING TRANSITIONS TOWARDS THE INFORMATION SOCIETY

Connectivity is an unavoidable, though insufficient, indicator in order to evaluate the participation of the Region and each of its countries in this new socioeconomic and cultural paradigm which impels the intensive use of the new information and communication technologies.

In this respect, the situation in Latin America offers noticeable lights and shades.

From a comparative point of view with the developed countries, and in particular with the United States, the differences in number of hosts, number of users and number of PCs per inhabitant are substantial, as shown in Charts 1, 2 and 3.

The percentage of people connected to Internet in LAC was, according to different sources, about 4-6% in the first semester of 2001[2], with 28% in Europe and 41.05% in Canada and the United States over the same period.

Within the Region there are noticeable differences between the countries. In Chile 20% of the population are Internet users, in Argentina 10% and in Brazil 7,74%. However, Mexico -which has the same population density as these countries, registers just 3.38% of Internet users. In comparison, Bolivia registers 0.36% and Paraguay 0,98%. (Chart 3).

From the economic point of view, although their contribution to World GDP amounts to 7%, only 1% participate in electronic world trade (Hilbert, 2001ª)[3]

Although this *"fixed picture"* reflects the sharpest angles of inequity, it fails to show that, unlike other regions in the world, LAC has had the fastest expansion of Internet in the past years. With respect to 1999, the number of hosts grew by 30% in Europe, 61% in Asia, 74% in North America, but 136% in Latin America. (Hilbert, 2001ª).

From this we might conclude that there is a technological revolution in progress that will achieve, with the passing of time, a balance between some people's advantages and other people's disadvantages.

However, this data is not enough for us to speculate about the future. Nothing is said regarding the digital gaps between geographical regions within each country, between generations, ethnic groups and gender.

[2] The pace of expansion of ICT users is vertiginous, particularly in some Latin American countries. (http://www.itu.int/ITU-D/ict/statistics.)

[3] Hilbert, Martin (2001): *Latin America on its path into the digital age: where are we?*, Santiago de Chile, Division of Production, Productivity and Management , Economic Commission for Latin America and the Caribbean (ECLAC) June.

We know that connectivity is mainly an urban phenomenon, that there is a deep segmentation among users according to social class[4], evident digital gaps according to educational level and the quality of the education received[5], and a very significant prevalence of young users[6].

However, we lack of reliable data regarding gender differences. The available reports mention only an average of about 38% of women among the LAC Web users[7], but there is no information that compares variables such as sex, age, social class, place of residence, educational level, etc.

This poses a great obstacle at the time of planning policies and programs oriented to women and/or to balancing gender differences in this field.

Another important consideration regarding the possibilities of Latin American countries to be integrated in the Information Society is to remember that this "global" tendency has taken place along with one of the most critical historical stages in the economic and social scenarios since the 70s. The scandalous growth of poverty and of the levels of social inequity, together with the weakness of the national states and the lack of public investment in strategic sectors for human development, such as education or health; together with other alarming signs such as the lack of transparency of the state administration of budgets for social programs and purchase of technological infrastructure, the concentration of multimedia in the hands of transnational corporations, and the absence of regulations regarding the rates of telecommunication services, do not allow us to be very optimistic, at least in the short term.

Furthermore, the achievements obtained so far could be lost as a consequence of the deterioration of the life conditions of big sectors of the population, for example the middle class. Also, as **ECLAC**[8] points out, the digital gap between the countries in the Region and between the Region and the developed world could grow.

"The fact that a significant number of countries in the region show degrees of connectivity higher than expected according to the income level per inhabitant, and that

[4] According to Emarketers' estimations, 18.1% of the richest 15% of Latin American population was connected at the beginning of 2000, while only 2.7% of the total Latin American population was connected. It is expected that by 2004, 68.9% of the richest 15% of Latin American population of 14 or over will be connected, while only 10% of the total Latin American population of 14 or over will be. (Hilbert, 2001)

[5] A study carried out in Uruguay in 1998 shows that people with tertiary education prevail among the ones who have ever been connected to Internet: *"two thirds of university students use the Internet for e-mail and searches, which goes down to 41% and 30% for secondary and primary education respectively."* (Sutz, 2002)

[6] In Brazil, 15.8% of Internet users is between 14 and 9 years old, 11.3% between 20 and 35 years old, 5.6% between 36 and 45 and users over 46 amount only to 3%. These differences increase in the case of personal computers: 27, 19, 13.7 and 6.3% respectively.

[7] This figure appears in the reports from Jupiter Communication and coincides with the survey carried out by MORI-USA from Princeton, based on interviews to 10.395 people in cities of over 50 thousand people in 11 Latin American countries.

[8] ECLAC (2002): *Digital gap in Latin America could grow*, Economic Commission for Latin America and the Caribbean (ECLAC) ,March, 2002, www.eclac.cl

the gap that separates them from the leading countries in the field of Information and Communication Technologies (ICTs) has to some extent been reduced, does not guarantee that in the next few years they will be automatically incorporated in to the digital era".

Unless additional efforts are made on the part of the State, the private sector and the civil society in order to prevent that the economic cycle in the Region completely determines the investment in infrastructure and technological capacities, it is highly probable that e-gaps will continue to grow.

Therefore, ECLAC[9] recommends carrying out a **systemic strategy** that "articulates promotion of technological capacities in all the countries, support to transformation of the productive structures, development of national and regional productive networks and setting up a quality infrastructure."

That means not only bringing ICT infrastructure within the reach of all, and in particular the most postponed social groups, but also fostering more powerful actions such as:

- strengthening the national systems of research and technological innovation
- supporting small and medium-sized enterprises (MSEs) producing technology
- involving the private sector in new technologies which contribute to development processes (e.g. biotechnology)
- participating in initiatives oriented to ensure universal access to ICT.

Finally, ECLAC suggests fostering **regional cooperation**, for the development, consolidation and commercialization of high technology products and services.

This general frame offers new **"entry points"** for the integration of women, not only as ICT users, but also as researchers, producers, workers, educators, project managers and in many other positions from which they can contribute, through the new technologies, to the "economic growth with equity" as needed in the LAC Region.

What progress is being made in terms of regulations, policies and programs in the Region in order to expand and optimize the use of ICTs in different areas of national and regional development?

Charts 4 and 5 show an overview of the progress that some countries are making and how ICT policy is being dealt with in the latest regional meetings.

A particularly interesting and at the same time disturbing question is the confirmation that gender equality still has very limited presence in these meetings, or continues to be added in the recommendations in a very weak way, and in some cases even using a widely criticized perspective as is referring to women as a discriminated or minority group along with other groups in the same situation. (Chart 5)

[9] ECLAC (2000): *Latin America and the Caribbean in the transition to Knowledge Society* , Document prepared by the secretariat of the Economic Commission for Latin America and the Caribbean (ECLAC) for the Regional Meeting on Information Technology for Development (Florianópolis, Santa Catarina, Brazil, 20-21 June 2000).

This corroborates the persistent lack of consideration of gender perspective in regional meetings dealing with ICT policies, in spite of the continuous presence of gender issues in the media, the proliferation of women NGOs, of Women Studies in almost all Latin American Universities, and the numerous international recommendations in this respect approved by most of the governments[10].

On the other hand it shows the importance for gender practitioners and researchers of analyzing the general debates which are taking place around ICTs in LAC and worldwide, the prevailing paradigms, the ideological orientations, as well as the actors and power relations at stake. We will thus be able to advance with much more information toward a mainstreaming gender equality in ICTs, instead of repeating the same old formula *"add gender and stir the field"* which so little has achieved so far in many other areas.

What is the position within this context of women researchers and/or activists who work for gender equality in and through ICTs in LAC?
What information do they manage, what problems do they detect, what solutions do they propose?

In order to answer these questions we recently carried out an electronic consultation, which we will comment on in the following section.

[10] *"…The incorporation of ICTs into Central America are not focused on promoting gender equality or on increasing opportunities for women…"* (Gomez, Ricardo and Juliana Martinez (2001): *Internet...Why? And what for?,* IDRC/Fundacion Acceso, Costa Rica, March. (www.acceso.or.cr/pppp))

MAKING ROOM TO WOMEN´S VOICES

For the preparation of this document, an electronic consultation was carried out among Latin American researchers, educators and activists involved in projects on / with women / gender and ICT[11]. [12]

We wanted to learn more about the current situation of women/ gender and ICTs in the Region, identify new experiences in practice, recognize their needs and demands and consider the strategic orientations they propose for increasing and strengthening gender fair projects and policies.

- ✓ All of them show high appraisal of the opportunities that ICTs offer to women as a means of exchanging information, and building and participating in national, regional and international networks.

- ✓ According to some of them, the use of ICTs has brought about a spectacular progress in terms of organization, articulation of demands, legitimacy, knowledge building , and creation of alliances among women NGOs over the last decade.

- ✓ They highlighted the coordination of women NGOs around the preparation for World Conferences such as the ones in Beijing, Durban and the Social Forum in Porto Alegre; their follow-up as well as the continuous actions of advocacy and networking around significant topics such as poverty, sexual and reproductive health, women's rights, etc. at national and regional levels.

  Experiences like community telecenters[13] (http://www.tele-centros.org/) thoroughly spread in almost all Latin American countries[14] were presented as positive examples of democratization of the Internet, motivation for women participation and leadership in these areas, stimulation of the social uses of the Internet, and active and informed inclusion of marginalized sectors.

---

[11] A set of 20 questions was sent to women from different Latin American countries who are recognized for their expertise in this field. Obviously, this group does not stand for all women experts and organizations involved in ICT projects in the Region. We got back 12 responses from Argentina, Uruguay, Paraguay, Brazil, Ecuador, Colombia, Costa Rica and Mexico. Most of the opinions and suggestions were very useful for the preparation of this document. In particular we want to recognize the contributions of Dafne Plou (Argentina), Magaly Pasarello (Brasil), Alicia Richiero (Uruguay), Graciela Selaimen (Brasil), Gloria Careaga Perez (Mexico), Carmen Colazzo (Paraguay), Juliana Abella (Uruguay), Giovanna Tipan Barrera (Ecuador),

[12] In the last months two international electronic forums were held by DAW and INSTRAW. It is important to notice that very few Latin American specialists participated in both of them. This situation can be attributed to language (both were developed in English) and lack of information

[13] The **Somos@telecentros** Virtual Community is part of the **TELELAC** (Latin American and Caribbean Telecenter Network) Project coordinated by **Chasquinet Foundation** (Quito, Ecuador) and supported by the **International Development Research Centre** (IRDC, Canada). There are other similar projects in Central America such as Proyecto LINCOS and SISCOM in Costa Rica

[14] This network consists of a rapidly growing community of 350 telecenters throughout LAC, committed to fulfilling the potential contribution that telecenters can make to digital inclusion strategies throughout the region.

Together with community radio stations, telecenters have become important resources for building a sense of community identity and increasing citizen consciousness and participation in defense of people's rights and interests.

The use of the Internet by rural and indigenous groups and communities for the commercialization of handmade products and other experiences aimed to revalue and disseminating their original cultures were mentioned as relevant achievements. [15] [16]

The work carried out by APC in the Region and the GEM[17] project in particular were seen as an important step forward in order to produce knowledge on projects in progress, learn about "goods practices" and thus improve the planning, implementation and evaluation of new projects.

- ✓ From the political-institutional point of view, the Brazilian participants highlighted the value of associative projects between NGOs and the government in the creation of telecenters and other related projects. As an example they mentioned the cooperation between the government of San Pablo and RITS[18] who manage over 100 free and public access telecenters in that city, from which they are beginning to produce content for ICT educational projects in communities with high level of violence.

- ✓ While most of them admit that transnational corporations and their economic interests are the most powerful factors affecting the creation and spreading of the new technologies, they insist on the fact that Latin American social movements and women NGOs in particular are starting to appropriate ICTs for participatory and organizational purposes. In doing so they are generating a **new political culture** along with alternative content on the web.

[15] One of these cases is the *Centro de Mujeres Comunicadoras Mayas de Ecuador* (Center of Mayan Women Communicators of Ecuador) who commercialize their handicrafts through Internet, and select information and resources for the improvement of their craft techniques.

[16] Another example is the ECUANEX Project: Red de Comunicación Electrónica para Comunidades Indígenas de la Amazonía Ecuatoriana (Electronic Communication Network for the Indigenous Communities in Ecuadorian Amazon) http://www.redes-comunitarias.apc.org/ecuanex_project/index.html

[17] **GEM** (Gender Evaluation Methodology) is a guide to integrating gender analysis into evaluations of initiatives that use Information and Communication Technologies (ICTs) for social change. The **APC** (Association Progressive Communication) **WNSP** (Women's Networking Support Programs) supports women networking for social change including training, participatory research, policy and advocacy in gender and information technology, information facilitation, and regional program support. They strive to challenge the inequities faced by women, especially in the south. http://www.apcwomen.org .

GEM is being used in Latin America by the following organizations: Tester Profiles, Women´s Network, AMARC LAC - Ecuador y Bolivia (www.amarc.org/alc/servicios.htm), Rede Mulher de Educacao - Brazil (www.redemulher.org.br), Modemmujer - México (www.modemmujer.org) Telecenters: BarrioNet - Ecuador (www.barrionet.org), Neighborhood Electronic Communications Network - Ecuador (www.infodesarrollo.org/proyectos.html?x=1121), Neighborhood Information Units, ATI/Colnodo - Colombia (www.uib.colnodo.apc.org) Coordinator for Latin America: Dafne Sabanes Plou.

[18] Rede de Informacoes Para o Terceiro Setor, www.rits.org.br .

"Today, social movements, groups and individuals publish thousands of bulletins, dossiers, documents, newsletters, magazines and even newspapers on the Internet. People who may not be able to print their newsletter or magazine are able to post it on the web, and most of these publications have become good alternatives sources of information to the mainstream media. In addition, there are independent and community radio stations broadcasting on the web and TV initiatives that use the web casting to transmit their images and information" [19]

- ✓ In their view the prevailing problems are:

1. Lack of statistical information and qualitative research on women and ICTs and on gender differences in access, uses and production of these technologies.

2. Persistence of connectivity problems due to lack of infrastructure , high costs of equipment and telecommunications, concentration of resources in urban centers and economic and educational shortcomings of the most marginal populations, and particularly women.

3. Lack of acknowledgement on the part of governments of gender inequities in all the social areas and particularly in the technological and scientific fields, and the consequent absence of gender fair public policies.

4. Need to advance, both at the theoretical and at the strategic levels, from the initial focus on access to the technologies on the part of women, toward the creation of conditions and resources that favor their appropriation of this tool to meet their needs and those of their communities.

5. Concern for the penetration of values, models and aspirations representing an hegemonic cultural model which excludes the cultural diversity of LAC.

6. Concern for the lack of awareness and still weak commitment of the women's movement and NGOs in the struggle for ICTs as a fundamental tool for political and cultural transformation.
   It is widely admitted that the ICT field is one of last areas influenced by a gender perspective, which explains that gender activists, researchers and educators involved in this field are still very few and they have not yet achieved a coordination of efforts that enables a stronger incidence on national and regional policies.

7. Educational programs fostering the use of ICTs among women, particularly girls and young women, are highly instrumental and not gender sensitive. There is a need to develop educational projects that stimulate critical and creative skills and that encourage greater participation of women in the design and production of new technologies.

8. Difficulties in order to efficiently administer the immense flow of information that the Internet offers. This requires an educational and cultural capital that many women lack, and that cannot be provided through mere access to computers. Intelligent and selective connection demands much more time than

[19] Plou, Dafne (2002) **:** FORUM: Gender and the Digital Divide Media and Gender, Monitor 10 WACC. http://www.wacc.org.uk/publications/mgm/11/digitaldivide.html

women usually have due to their family and work duties. *"It is a third -or even a fourth- work day."*

9. Certain resistance on the part of women and NGOs to the use of technological tools other than the e-mail.
   The lack of infrastructure and technological skills, along with other educational and cultural factors, are preventing women from becoming producers of new contents and of formats that are attractive and powerful from the communicational point of view. "I believe that women organizations could develop more interactive sites rather than just electronic ones, as is the case of most of the NGOs websites"

Recommended Strategies

1. To consider ICTs as an essential tool for increasing gender equality while actively engaging in fostering social and economic development in LAC.

2. To focus the debate and the political activism in/for ICTs within a frame of human rights and human development.
   For many participants, women involvement in programs and policies would gain force, impact and social relevance if they associated ICTs with the struggle against poverty, unemployment, violence, racism, discrimination and the consolidation of democracy and economic growth.

3. To motivate, through educational programs and other means, women appropriation of ICTs towards increasing their citizen identity and their active participation in the political and economic life of their communities. "Women are understanding that in the current informatic society, quick access to relevant information is essential for an effective intervention, in order to participate in the decisions, propose viable alternatives and establish priorities, with the purpose of influencing the different spheres of their society." [20]

4. To establish alliances between government, civil society, business and international organisms to implement effective and sustainable ICT policies and programs that contribute to gender equality and social equity.

5. To sensitize women in political positions, both in the executive and in parliament, on the gender dimensions of the new technologies so that they support laws , regulations and projects that address women needs and avoid sexist biases.

[20] Plou, Dafne (2002): *Derechos en Internet, ¿Por qué involucrarnos?,* www.apc.org

FIRST STEPS ON A LONG ROAD: WOMEN NGOs AND THEIR USE OF ICTs

Latin American women organizations have focused their efforts mainly on the "*democratization*" of connectivity.

Most of the projects carried out by NGOs have been very specific and short-termed . There have also been some experimental programs developed by local governments, connecting a reduced number of groups and organizations[21].

They have typically offered access and training with the aim of encouraging the use of ICTs for making alliances, mobilizing politically, obtaining information, and achieving community or institutional presence.

As we have already mentioned, little is known about the impact of these initiatives in the long term, beyond some dazzling achievements mentioned in some meetings and in informal exchanges and presented without enough supporting evidence.

But parallel to this, are women organizations actually using ICTs for their own institutional development and for gaining visibility and influence on society?

We will mention three studies that show how this process has been carried out, their results and limitations.

1. INSTRAW Women and CMC Report[22]

The study covered 133 organizations devoted to the advancement of women in 23 Latin American and Caribbean countries. Most of them were NGOs but 12% were governmental, the majority operated at national level, more than 10% were regional and a quarter were local organizations, some of them even grassroots groups. The working hypothesis was that many of those organizations had access to the hardware, had an account with a network and often had received training in computer communications. However, they did not apply this technology to its full potential due to the lack a "*telematic culture*". According to INSTRAW, in order to acquire this kind of culture, a motivational and gender sensitive training has to be provided, rather than a technical and intimidating one.

1) **The conclusions showed some interesting points for reflection:** Access to the Internet did not present difficulties for the majority of the organizations surveyed.
2) Possession of equipment was not a problem for most of them.
3) Training was widespread among organizations with online access, but the proportion of the staff that received it was low. 53% of the trainees received only half a day of training, which influenced their effective use of the tool. Training was

[21] Another line of action promoted by governments consists of providing schools with computers with online access in order to induce technological literacy and the use of this tool as part of the educational process. Unfortunately there has been no coordination between these programs and the initiatives of social organizations, which are many times focused on the same target, for example young people from poor areas.

[22] INSTRAW Women and CMC Report, 1996

mostly carried out by the access provider, but gender sensitive training was not widely available.
4) Women were the primary users of CMC, even in mixed-gender organizations.
5) When it came to the available online tools, organizations seemed to be aware of only a few of them. "They are living in a mansion but using only a couple of rooms".
6) Web pages or the use of electronic lists was still infrequent.
7) The greatest obstacle for the full use of CMC was lack of information about how computing can help the organization achieve its goals.

2. Analysis of access and uses of the Internet by NGOs developing projects supported by the Program on Women and Leadership (PROLEAD) of IADB[23].

It was observed that although all the organizations had enough computers, even latest generation ones, they were only used for writing documents, e-mail and -to a minor extent- for searching for information on the Internet.

Although many of the organizations expressed interest in having their own website, they limited their potential to an institutional presence in cyberspace.

A different angle for analysis, and a particularly interesting one, has to do with the use that women organizations make of the public information available on the Internet for advocacy actions and policy proposals. In other words, the way in which ICT mediates in the relations between civil society and the state and how women NGOs can take advantage of this.

3. The study by Martinez and Reilly *"Looking Behind the Internet: Empowering Women for Public Policy Advocacy in Central America"*[24], carried out in Costa Rica and Nicaragua, deals precisely with detecting to what extent the needs for public information required by women organizations for their political work are satisfactorily met by the Internet.

The first findings show the existence of important obstacles for access to this information due to:

- a political culture which is disrespectful of the right of civil society to information
- complexity of the public information available on the Internet (mainly in terms of language)
- limited knowledge of the effective ways of using public information for advocacy, lobbying, policy proposals, etc.

[23] Bonder, Gloria (2000): Analysis of the survey carried out by PROLEAD/BID "Access and uses of technology by women organizations participating in the PROLEAD Program"

[24] Martinez Juliana and Reilly Katherine (2002): *Looking Behind the Internet: Empowering Women for Public Policy Advocacy in Central America*, UN/INSTRAW Virtual Seminar Series on Gender and ICTs, Seminar Four: ICTs as Tools for Bridging the Digital Gender Gap and Women's Empowerment, 2-14 September, 2002.

Among their conclusions they highlight that “the lack of public information makes it harder for women to promote policy changes”.

Their recommendations insist on exploring “the interface between public policy and social movement” and the role that ICTs should play in this arena and in the design of political agendas and advocacy strategies.

Within that frame, the first step for women organizations is “to design advocacy strategies to claim the right to access to public information” and in doing so “to define what kind of information they need, how they need it to be presented and what technical means will support it, etc.”

Although not much has been achieved so far, studies as the ones mentioned above can prevent us from insisting on carrying out the same kind of project and make us more sensitive to what is needed at this particular stage.

BUILDING NEW HORIZONS BY ARTICULATING INFORMATION AND IMAGINATION

The debate on ICT policies in the LAC Region has only recently begun and it is moving slowly.

This is not surprising if we consider that the spreading of ICTs in the Region is a phenomenon that has vertiginously developed since the 90s, within a frame of democratization of political institutions initiated in the 80s, liberalization of the economy, opening of the markets, deregulation and privatization of the telecommunication services during the 90s.

The fiscal urgency and the precarious conditions of telecommunication in the hands of the state, "justified" the adoption of privatization policies that, in most of the countries, ended up protecting the interests of the transnational corporations solely.

"Because privatization was carried out in response to fiscal emergency, regulatory agencies were not created until later when contracts had already been signed and commitments made, all of which further limited the agency's ability to act"

Therefore, the need for passing laws and establishing regulations and entities that were responsible, effective and autonomous regarding ICTs, has been delayed or underestimated.

This aspect, among others, makes that the transition to an information and knowledge-based society raises a number of important questions for the Region.

- What possibilities do Latin American countries have of carrying out this transition, when their current structural conditions are based on deep socioeconomic inequalities, low levels of state investment in technology infrastructure and services, and very poor regulations?

- How can they ensure that the economic benefits of these technologies do not remain in the hands of a small number of corporations and people with more economic and cultural resources?

- What type of laws, regulations and regulatory entities should be created in order to ensure genuine competition among network service providers while committing them to support universal access to this service?

- How can the cultural and linguistic diversity of Latin America and the Caribbean be integrated and highlighted on the global net?

- How can we foster local production of technologies competitive in the global market?

- How can we support the democratization of ICTs, as well as their contribution to the processes of democratization of society and its institutions? (e-governance, for example)

These complex questions will probably remain open for discussion for some time. However, they do not prevent some sectors from giving answers which, although partial, show, at least, a promising direction.

Charts 4 and 5 show the "general" recommendations from recent regional meetings. To conclude this point we will review the agenda proposed by ECLAC to achieve greater efficiency and equity in this transition phase of ICTs in the Region[25].

A) To counteract the adverse effects of the structural reforms (economic, financial and in all sectors of the state) enforced over the last decades by:
   - creating, reforming and putting into action strong and independent regulatory entities, that ensure new ways of "regulated competition" and defend the interests of the consumers.
   - promoting models of social organization of production that protect consumers' well-being and propitiate an efficient assignment of resources[26].

B) To straighten the market flaws by implementing an integrated policy of productive and technological development together with measures ensuring the training of qualified human resources and the generation of "social capital" as well as the expansion and improvement of the productive industry within regional cooperation.

C) To reinforce the efforts for technological innovation, production and dissemination by enlarging the national budget for research and development and dissemination of technology and generating incentives that stimulate private investment in these areas.

D) To encourage greater efficiency and equity in the transition toward the Knowledge Society by:
   - providing telecommunication services at lower costs and of easy accessibility to the digital nets
   - ensuring access of low-income sectors

Although we share many of these concepts, it is again noticeable that in this Regional Agenda no reference is made to gender. This confirms that the **general concern for ICT policies and the debates on gender issues seem to run along parallel roads.**
Except for some specific references to gender equality as a particular issue, most of the documents produced by mainstream organisms overlook almost completely gender inequalities and the solutions which are being proposed by the women's / feminist movement and the national and regional organizations working in this field.

[25] ECLAC (2000), op.cit.

[26] It is interesting it highlight that ICT issue is almost always addressed from the "software" side, without taking into account anther problem of vital importance: the low participation of Latin America and the Caribbean in the trade of "ICT hardware". East Asian developing countries export almost 40% of world ICT goods, while the share of the region in international ICT trade is extremely low (4.3%). Most of it comes from Mexico and it should also be mentioned that Costa Rica's high "ICT-orientation" which is apparently changing the productive and trade structure of the country.

But this dissociation is not the exclusive responsibility of those who deal with the more general policies. Also, the women and / or gender organizations tend to operate in an "autistic way". That is to say, they focus with the same exclusivity on the questions directly related with women inequality and / in ICTs. Eventually they may highlight more forcefully the obstacles faced by certain groups with greater disadvantages (the poor, the indigenous, the rural, the black) and suggest repairing measures to be adopted.

It is not frequent either that in order to define "gender" proposals they take into account the socioeconomic and political context, the institutional frames, the different actors and power relations at stake.

That might explain that in spite of the enormous effort toward sensitizing political decision-makers, corporations and other sectors, many of these attempts are limited to declarations of good purposes and moral imperatives, losing force and legitimacy.

As it has already happened in other arenas, our impression is that in order to carry out significant advances in ICT policies based on gender equality, systematic strategic planning is an essential requirement. It has to be based on reliable information, articulating gender demands and proposals for ICTs with the openings and restrictions presented by the current socioeconomic, political, scientific and technological context, at national , regional and international levels..

Some of the elements that may contribute to take firmer steps in a field that is full of opportunities and as well as risks are:

- Wide range and contextualized proposals, based on information, with clear short and long term objectives, open to dialogue and negotiation with different power groups.

- Alternative plans for different scenarios, carried out by organizations and networks with experience in advocacy and wide knowledge of ICT debates and advancements.

For the time being, no advances with this conception are perceived. As we have already mentioned, the most important change in the last decade is the growth in number and type of women and organizations using the Internet for exchange of information, organization, education, advocacy and development of projects (which are sometimes considered policies, although they are not).

Among the technological tools and formats, the most widely used are:
- E-mailing lists (permanent and occasional)
- Electronic bulletins: www.mujeresdeempresa.com, repem@chasque.apc.org
- Electronic Journals: www.isis.cl
- Information services: Modemmujer (Mexico) www.modemmujer.org
- Data Banks: www.mei.com.ar (on women in politics)
- Web sites
- Radio: Radio FIRE http://www.fire.or.cr/
- Electronic networks: Red Feminista Latinoamericana y del Caribe contra la Violencia Doméstica y Sexual, REPEM, Isis Internacional.

As regards policy recommendations, most of the documents elaborated by women NGOs agree on the same points:

- Research of ICT women users and workers in the telecommunication and information industry
- Compliance with their work rights
- Measures to avoid the discrimination of women in terms of wages, benefits and recognition of their work
- Public policies ensuring universal access to ICTs
- Lower costs of access and use to overcome the digital gap
- Participation of women groups in the decisions concerning the design, use and spreading of technological systems.

Can we move forward?

It seems to us that in order to discuss future actions, it would be useful to bear in mind which are the fundamental conceptions, principles, objectives and actions that are being used and implemented for engendering ICT policies. We are including an outline which summarizes in our opinion some of fundamental points of the theoretical and strategic discussion around this topic.

Its aim is not to show an "evolutionary progress" from one conception to the next, neither does it imply a judgment of value of any of the strategies proposed. Its sole purpose is to enrich the elaboration of new proposals by taking advantage of what has been achieved so far.

GENDER APPROACHES TO ICT POLICIES AND PROGRAMS

PROBLEM DEFINITION	PERSPECTIVE	GOALS	MEASURES / ACTIONS	ETHICAL / POLITICAL PRINCIPLES
- Unequal access and participation of women in ICTs as users, students, teachers, workers and professionals. Explanations: - Lack of economic resources, education and infrastructure. - Cultural values and gender discrimination patterns in society and institutions.	- "Deficit model" Women seen as a group in social and economic disadvantage. **Compensatory Strategy**	- Promotion of equal opportunities for all women in terms of access to ICTs as well as participation in educational programs and technology industries.	- Community based projects (telecenters or similar). - Educational and training programs, scholarships, public campaigns, provision of equipment and other incentives. - Networking.	- Women's Rights - Equal opportunities - Gender justice - Integration of women in the development and modernization of economy and culture: being part of the global society
- Gender "nature" and characteristics of ICTs: focus on contents, formats, uses, impacts, regulations, etc. - ICTs as a field of power relations. - Devaluation / invisibility of women's needs, knowledge, skills and technological culture. - Homogenization vs. diversity.	- "Difference model" (Valorization of women's cultures, values and visions in / for ICTs) **Critical Strategy**	- Integration of women's needs, "ways of knowing" and relating with information and communication in educational, research and innovation projects. - Generation of new contents, formats, tools, etc. - Deconstruction of technology discourses and dominant practices.	- Emphasis on research and academic debates, cyber-feminist theories and innovative experiences. - Women- friendly training and educational projects. - Promotion of critical analysis of power / gender relations in contents, tools, and ICT policies.	- Inclusivity - Diversity - Empowerment - KEYS for improving the quality and social uses of ICTs
- How to change gender / power relations in and through ICTs. - Information / Knowledge Society: meanings, power and impacts on gender equality and human development.	**Transformative strategy**	- Mainstreaming gender analysis, planning and evaluation in ICT policies, programs and projects at national, regional and international levels. - Addressing all dimensions of ICTs (access, uses, appropriation, production, management, ownership, regulation, policies, etc.)	- : Collection and dissemination of statistics and elaboration of gender indicators in ICTs. - (Interdisciplinary) research of gender relations in all dimensions of ICTs. - Lobbying and continuous dialogue among researchers, policy makers, women groups, corporate sector. - Networking and collaborative projects at regional and international levels.	- Long term transformational strategies. - Building a new social paradigm: a gender fair Knowledge Society.

			- Continuous evaluation of policies and programs. - Development of gender sensitive science and technology education at all levels of the educational system. - Promotion of equal participation of women and men at all levels of the technology industry. - Assertive action and other measures to remove subtle obstacles preventing women professional development in S&T.	

CHARTS

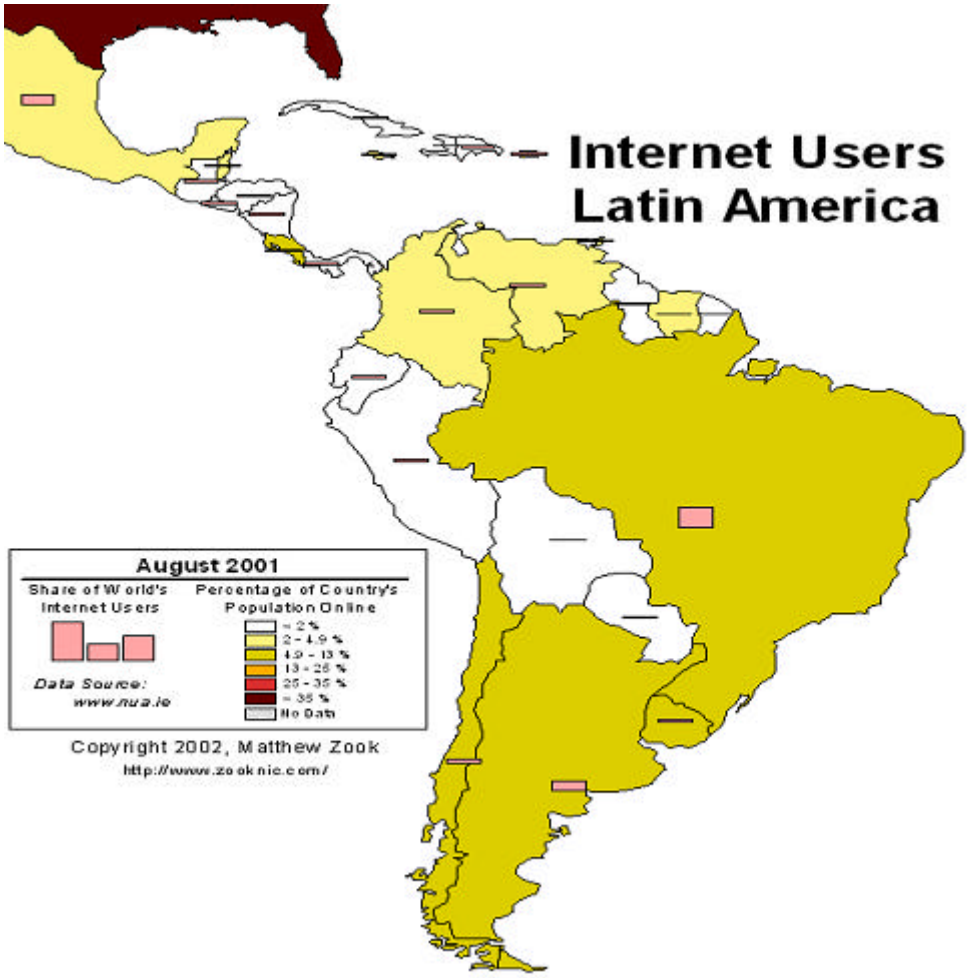
1_

USERS CONNECTED TO THE INTERNET IN THE WORLD (March/01)

World total	*407.1 million*
Africa	3.11 million
Asia/Pacific	104.88 million
Europe	113.14 million
Middle East	2.40 million
Canada and USA	167.12 million
Latin America	16.45 million

Source: http://www.nua.ie/surveys/how_many_online/index.html

2_ MAP


Internet Users
Latin America
August 2001
Share of World's Internet Users
Percentage of Country's Population Online
< 2 %
2 - 4.9 %
4.9 - 13 %
13 - 25 %
25 - 35 %
> 35 %
No Data
Data Source:
www.nua.ie
Copyright 2002, Matthew Zook
http://www.zooknic.com/

3_ INDICATORS

Data compilation on the Information Society situation in Latin America and the Caribbean

South America

Country	Population (2001) 1	GDP *per capita* 2 (US$ thousands)	Teledensity 3 (telephone lines per 100 inhabitants) (2001)	Internet Services Providers 4 (2000)	Internet Users	Internet Users % of population 5	Ranking in the Information Society Index (2001) 6
Argentina	37.4 millions	7.46 (2001)	21,3 lines	33	3.88 millions (July 2001)	10.38	31
Bolivia	8.3 millions	2.6 (2000)	6,17	9	78 thousand (Dec. 1999)	0.98	-
Brazil	174.74 millions	2.93 (2001)	18,18	50	13.62 millions (May 2002) 7	7.74	45
Chile	15.33 millions	10.1 (2000)	22,12	7	3.1 millions (Dec. 2001)	20.02	33
Colombia	40.35 millions	6.2	16,91	18	1.15 thousand (Dec. 2001)	2.81	46
Ecuador	13.18 millions	2.9	10,0	13	328 thousand (Dec. 2001)	2.44	43
French Guyana	177.5 thousand	6.0	28,26	2	2 thousand (Dec. 1999)	1.16	-
Guyana	177.5 thousand	6.0	7,94	3	95 thousand (Dec. 1999)	13.61	-
Paraguay	15.73 millions	4.7	5,54	4	20 thousand (Dec. 1999)	0.36	-
Peru	27.4 millions	4.5	6,37	10	3 millions (Dec. 2001)	10.73	49
Suriname	434 thousand	3.4	18,06	2	14.5 thousand (Dec. 2001)	3.32	-
Uruguay	3.36 millions	9.3	27,84	7	95 thousand (Dec. 2001)	13.61	-
Venezuela	24 millions	6.2	10,78	16	95 thousand (Dec. 2001)	13.61	39

Central America

Country	Population (2001)	GDP *per capita* (US$ thousands)	Teledensity (telephone lines per 100 inhabitants) (2001)	Internet Services Providers (2000)	Internet Users	Internet Users % of population	Ranking in the Information Society Index (2001)
Belize	256.0 thousand	3.2	14,93	2	18 thousand	6.84	-
Costa Rica	3.77 millions	6.7	24,94	3	384 thousand (Dec. 2001)	10.1	36
El Salvador	6.23 millions	4.0	9,08	4	40 thousand	0.65	-
Guatemala	12.97 millions	3.7	5,71	5	200 mi (Dec. 2001)	1.5	-
Honduras	6.40 millions	2.7	4,60	8	40 thousand (Dec. 1999)	0.64	-
Mexico	101.88 millions	9.1	12,47	51	3.5 millions (Dec. 2001)	3.38	42
Nicaragua	4.91 millions	2.7	3,13 (estimate)	3	20 thousand	-	-
Panama	2.84 millions	6.0	16,45	6	45 thousand (1999)	1.6	37

Caribbean

Country	Population (2001)	GDP *per capita* (US$ thousands)	Teledensity (telephone lines per 100 inhabitants) (2001)	Internet Services Providers (2000)	Internet Users	Internet Users % of population	Ranking in the Information Society Index (2001)
Antigua & Barbuda	68 thousand	8.2 (1999)	49,94	16	5 thousand (Dec. 2000)	7.52	-
Aruba	70 thousand	28.0	37,16	-	24 thousand (Dec. 2001)	34.07	-
Bahamas	298 thousand	15.0	37,58	19	16.9 thousand	5.62	-
Barbados	275 thousand	14.5	43,74	19	6 thousand (Dec. 1999)	2.19	-
Ilhas Caiman	35 thousand	24.5	-	16	-	-	-
Cuba	11.18 millions	1.7	4,36	4	120 thousand (Dec. 2001)	1.7	-
Dominica	71 thousand	4.0	29,42	16	2 il (Dec. 2001)	2.8	-
República Dominicana	8.56 millions	5.7	-	24	186 thousand (Dec. 2001)	2.13	-
Granada	89 thousand	4.4	-	14	5.2 thousand	5.83	-
Guadalupe	431 thousand	9.0 (1997)	44,93	3	4 thousand (Dec. 2001)	0.94	-
Haiti	7 millions	1.8	0,89	3	30 thousand (Dec. 2001)	0.42	-
Jamaica	2,6 millions	3.7	19,86	21	100 thousand (Dec. 2001)	3.73	-
Martinica	418.4 thousand	11.0 (1997)	43,44	2	5 thousand (Dec. 1999)	1.21	-

Puerto Rico	3.93 millions	10.0	33,19	76	600 thousand (Dec. 2001)	15.16	-
St. Kittis and Nevis	38.7 thousand	7.0	56,87	16	2 thousand (Dec. 1999)	5.15	-
Stª. Lúcia	158.1 thousand	4.5	31,34	15	3 thousand	1.92	-
St. Vincent and the Grenadines	115.9 thousand	2.8	-	15	3.5 thousand (Dec. 2000)	3.03	-
Trinidad & Tobago	1.16 thousand	9.5	23,1	17	120 thousand (Dec. 2001)	10.31	-
Virgin Islands	122.2 thousand	15.0	56,96	50	12 thousand (Dec. 1999)	9.92	-

4_ LEGISLATION, POLICIES AND NATIONAL PROGRAMS ON GENDER

COUNTRIES	LAWS, REGULATIONS AND POLICIES
ARGENTINA	• Decree 554/97 - June 18, 1997 Declares of national interest the access of all Argentine citizens to the Internet. Creates a Secretariat of Communications for the application of a strategic plan for the development of the Internet in Argentina. • Freedom of Expression Decree 1279/97 – December 1, 1997 Beholds the constitutional right to free speech over the Internet. • Access for All Decree 1018/98 for the creation of the program "argentin@internet.todos" - September 1, 1998 Creates a program for the development of telematic communications "argentin@internet.todos" whose main goal is the promotion of universal access to the Internet and information technologies. • Decree 1335/99 – November 11, 1999 Declares of national interest the project: "An e-mail address for each Argentine citizen", within the frame of the Program "argentin@internet.todos", designed to provide a free e-mail account for each Argentine citizen and to all legally registered organizations.
BARBADOS	• Edu Tech 2000 Program All primary and secondary schools will receive ICT equipment over the next few years.
BELIZE	• Internet for Schools Program (1995) Provides free Internet access to all high schools and universities
BOLIVIA	• Telecommunications Law N° 1632 – July 5, 1995 The Telecommunications Law of the Republic of Bolivia establishes the norms to regulate the public services and telecommunications activities witch include the transmission, emission and reception, through a Public or Private Net, of signals, symbols, text, images, voice, sounds, data or information of any nature.
BRAZIL	• Green Paper of the Program of the Information Society - August 2000 (GOV) A preliminary version of the Green Paper of the Program of the Information Society (SocInfo) was submitted on August 9th to the Minister of Science and Technology, Ronaldo Sardenberg. The Green Paper contains the objectives of implementation of the SocInfo program and was designed by the Ad hoc acting Group for the Program, composed by representatives of MCT, of the private sector and academia. • Information Society Program. (GOV) The objectives of The Information Society Program are: - to articulate, coordinate and foster the development and sure / safe? use of advanced computing, communication and information services and their applications in society, through research, Brazilian development and teaching, accelerating the availability of new services and application on the Internet; - to provide subsidies for the definition of a national strategy to conceive and stimulate the appropriate insertion of the Brazilian society into the Information Society.
CHILE	• Information and Communications Technologies Government Unit (UTIC) • The Information and Communications Technologies Government Unit (UTIC) was created by the Committee of Ministries for the Modernization of the Public Sector, in September 1997. This Unit acts as an advisory body of the Modernization Committee. Its mission is the coordination, promotion, advise and dissemination of

	strategies related to the use, incorporation and projections of the information and communication technologies in the State. • Presidential Commission of New Information and Communications Technologies Created on June 3, 1998 this Commission depends on the Ministry of Economy, and acts as an advisory unit to the President. Its goal is to promote public and private actions for the development of the information infrastructure in Chile. • Presidential Commission: Proposals to promote information Technologies in Chile – January 20, 1999 This document presents recommendations to accelerate the development of information technologies and digital nets in the country. It's goals are to promote universal access to knowledge and information; to develop new competitive skills and to modernize the state and its relation with civil society. • Supreme Decree Nº 187 – May 4, 1999 Stipulates new charges for telephone services in order to increase the use of local phone calls for the Internet. • Fund for the Development of Telecommunications The Fund for the Development of Telecommunications is being used to help develop community telecenters as part of a project for providing free Internet access to all Chilean communities by 2006.
COLOMBIA	• Connectivity Agenda: Jump into Internet – February 9, 2000 The Connectivity Schedule aims at achieving massive use of Information Technologies in Colombia, modernizing the public and government institutions, and simplifying access to information following the orientation established in the National Plan of Development 1998 – 2000.
HONDURAS	• General Law of the telecommunications area, Decree 185-95 December 5, 1995
JAMAICA	• Computing Strategic Plan
MEXICO	• National Institute of Statistics, Geography and Computing (INEGI) – General Direction of Computing Policy (DGPI) The mission of the INEGI is to provide public access Statistic and Geographic Information, to promote the use of computing to contribute to social well-being, economic growth, democratic development and strengthening of the Mexican Society. The DGPI is in charge of computing development. It's website offers information about computing policy of the country and related regulations • ISOC - Mexico. (NGO) The main purpose of the Internet Society of Mexico is to extend the development and the availability of the Internet, its technologies and applications, and to train organizations, professionals and individuals to collaborate and innovate in their own fields of actions.
PERU	• Telecommunications Law - April 28, 1993 This Law establishes a general framework for the regulation of the Telecommunications Area in Peru and declares its development a public need. • General Regulation of the Telecommunications Law – February 18, 1994 This Regulation establishes the general procedures for the delivery of Telecommunication Services, in accordance with the Telecommunications Law. • Peruvian Scientific Net Promotes public Internet centres.
URUGUAY	• Uruguay en Red.
VENEZUELA	• ISOC - Venezuela. (NGO) Since 1999, the Internet Society of Venezuela is acting as a coordinator of activities focused on the promotion and support of technologies, as well as the availability and development of the Internet in Venezuela.

5-

The InfoEthics 2000

Itacurucá Declaration
October 27, 2000

Under the auspices of UNESCO and Government of Brazil in Itacurucá, Río de Janeiro State, October 26-27, 2000

Recommendations

- Adoption of special policies and actions aiming at bridging the digital gap.
- Strengthening of the laws concerning digital information, with a particular focus on the requirements for the development of education, science and culture, within an ethical framework for the Information Society.
- Generation of local and national contents for public use to foster education, science and culture.
- Creation of a regional information space for public use to advance in the development and integration of Latin American and Caribbean societies, increasing their visibility in the global Information Society.
- Creation of a regional program on the Information Society.

First Latin American and Caribbean Workshop on Information and Communication Technologies
Margarita Island, Venezuela
November 28, 2000

Recommendations

- Identification and implementation of regional programs aimed at the integration of Latin American and Caribbean countries into the Information Society:

  → Regional Educational Connectivity Program – Internet in the School.

  → Program of Application of Information Technologies in the Health Sector in Latin America and the Caribbean.

  → Regional Electronic Government Program.

  → Regional Electronic Commerce Program.

INTERNATIONAL FORUM

Latin American and Caribbean in the Information Society
Rio de Janeiro, Brazil
September 26-28, 2002

The **United Nations** (represented by the UN ICT Task Force and UNESCO) and the **Brazilian Government** (represented by the Ministry for Science and Technology) will promote a high-level technical meeting to discuss priorities for Latin American and Caribbean countries related to the Information Society.

GENDER AND/OR WOMEN´S INTERESTS AND NEEDS WERE INCLUDED IN SPECIFIC PARAGRAPHS ONLY BY SOME SUB REGIONS AND USING DIFFERENT THEORETICAL AND POLITICAL INTERPRETATIONS:

MERCOSUR SUB-REGION:

Public policies must guarantee equality of opportunities in the Information Society, doing away with social barriers, in particular gender, intergeneration, ethnic and different abilities ones.

CARIBBEAN SUB-REGION:

In the context of universal access policies, special attention and resources are requested for the integration of marginalized groups such as: the disabled, children, women, indigenous groups and the elderly to ensure the participation of all.

ANDES SUB-REGION:

Active inclusion of all the actors in the democratization processes through communication and information: indigenous, poor, women, young.

BIBLIOGRAPHY

Association for Progressive Communications, Internet and ICT for Social Change. <http//www.apcwomen.org/gem/icts.htm>

Burch, Sally and Leon, Irene . "Directions for Women's Advocacy on ICT: Putting New Technologies on the Gender Agenda". Networking for Change: The APCWNSP´s First 8 Years. APCWNSP, Philippines, 2000. p.31.

Malcolm, Shirley M., "Knowledge, Technology & Development: A Gendered Perspective" <www.wigsat.org/malcom. html>

Menezes, Claudio (2001): *La UNESCO y el Desarrollo de la Sociedad de la Información en América Latina y el Caribe*. Uruguay, Montevideo, August, 2001

Curzon T. (2011, 31 January), Cupid's freedom: how the web sharpens the democratic revolution[1]

Franzen's "Freedom" holds the key to what I think is wrong with Morozov's cyber-pessimism: it underestimates the problem of common knowledge and the web's contribution to its creation. That is why Wikileaks, Facebook and the blogosphere have been important to events in North Africa

Evgeny Morozov thinks that the Net had nothing much to do with what is happening in North Africa. This follows closely the conclusions of his book - "The Net Delusion: How Not to Liberate The World" - describing all the ways that authoritarians can use the Internet and turn it into a mechanism of control, and all the way that liberal states turn it into a depoliticising mechanism of entertainment. His up-bringing in Belorussia will have taught him a lot about how control societies work, and it is very good to have an observer like Morozov who really knows in his bones what truly authoritarian regimes are capable of.

Yet that deep insight of his also blinds him to another: an understanding of the conditions that make a moment transformational. The point about transformative moments - and they come in personal life as much as political life - is that they rely on reconfigurations of the assumptions of what Game Theorists call common knowledge.

Common knowledge within a group of people is the fact not only that something is known by everyone, but also that it is known to be known by everyone, known to be known to be known by everyone, etc, ad infinitum. (There is an excellent Wikipedia article on common knowledge in Game Theory.) Knowing that something is commonly known is an important additional piece of information in many circumstances. What side of the road would you drive on if it weren't common knowledge what others would do?

It became a trope of the Bush era and the age of the military road to democracy promotion that what was really important to world affairs were the "unknown unknowns"; but it turns out that the real work in democratic transformations, the sort we hope is unfolding in North Africa and being brought to us by Wikileaks, is done by the "known knowns".

The extraordinary point of logic that the "common knowledge" assumption reveals is that a leap of faith is required - required in a logical sense - for risky, coordinated action to take place. If you like puzzles and you want to be quite sure that the sudden revelation of a "known known" can completely alter things, start with the classic example at the top of the Wikipedia article. The announcement of a piece of information that was already known but becomes commonly known has a completely transformative impact on a group.

But most cases are not so clear-cut - there is no deduction from the statement of common knowledge to the action; instead, there is the courageous decision to test whether everyone else - or enough others - are thinking what you're thinking. Jean-Jacques Rousseau, the eighteenth century Genevese philosopher credited - or blamed, depending on your view - with providing the underpinning for the French revolution described a stag hunt amongst a small group of people to

1 Retrieved from http://www.opendemocracy.net/openeconomy/tony-curzon-price/cupids-freedom-how-web-sharpens-democratic-revolution, 22 April 2011.

illustrate the common knowledge problem. Hunting a stag requires a group of people closing in on the animal from afar in a gradually tightening circle. What stops a single person from going solo and coursing a passing hare rather than sticking to their position and closing in on the stag? As long as there is common knowledge that all others will stick to their allotted task, it makes no sense to course the hare. But absent that common knowledge, the hare becomes a temptation. Rousseau sees the solution of these sorts of problems as being at the origin of the invention of language and the social contract.

How does this apply to revolutions and the Internet? Hannah Arendt describes the transformative revolutionary moments in the histories of America, France, Russia and Hungary as being moments when ordinary people abandon their routines - when common assumptions about the way things go are thrown out - and people come together to invent a new way of doing things, a new set of common assumptions. These moments may not last, but they punctuate history and set the scene for real novelty in human affairs.

Now imagine what is needed for that moment of abandonment to actually occur. It requires a remarkable act of coordination. Instead of all the usual acts of routine coordination - when we get up, turn on the radio, go to work, pick up the children - a large group has to coordinate on abandoning the usual coordinating routine.

It is no surprise that the very simplest case, when it happens between just two people, has become the defining narrative of the liberal individual's life: the moment of attraction. I am sure you have had the experience - you catch someone's eye; you wonder whether they are thinking the same disruptive thought as you; you test the assumption by acting on the thought. When it works, it seems like a miracle: you made an assumption, took some risk and found something shared and new. This is why the story of falling in love is so central to our individualised worlds: it is the last place where we commonly experience that freedom of being joined together.

Franzen's Midwestern soap opera, Freedom, is an exploration of exactly these revolutionary moments in the personal lives of Americans. This is why the book deserves its grand title. Patty, the heroine, is the one who enslaves herself, who abandons freedom, because she refuses those moments of risk-taking and common knowledge. Her husband and then her son, surprisingly, do not. They live out their lives of freedom, even when it involves picking through their own shit to do so - quite literally in one marvellous moment of farce. "Freedom" is a modern exploration of the last adventure on the last frontier - the discovery of others, the moment of mutual risk-taking. "Freedom" describes the place that the American dream has created to keep the frontier alive. Morozov, like Patty, I feel, makes the error of ignoring the conditions which make mutual, social risk-taking not only possible but, more importantly, attractive.

Imagine extending the moment of action that everyone knows from courtship to millions of people. Computer science and networking theory has its own version of the common knowledge problem: the Two Generals Problem (again, there is an excellent Wikipedia entry). This shows that there is no communication protocol that will allow completely secure communication between two parties over a transmission channel that might be compromised or contain errors. If there is ever a worry that the

message you got back contains an error - or worse has been tampered with - then no amount of confirmation of messages can guarantee that you will properly coordinate behaviour.

In the example of love, the "Two Generals" problem becomes the "shy lovers" problem: if each needs to know for sure that love will be reciprocated before making the first move, then love will never get off the ground. Love requires an act of faith, a willingness to be hurt, a being open to strangers whom you do not know that you can trust.

Web dating has transformed the creation of common knowledge amongst small numbers, and it is fundamentally in the very same process that lies the secret of the politically transformative nature of the web.

In the example of social protest, there is also a leap of faith - not the shy lovers, or the two generals, but the vulnerable first movers. When I go and put myself in danger, how do I know there will be safety in numbers? How does the Net affect the leap of faith? Not, as the Net Utopians whom Morozov rightly criticises might have it, by making truth and transparency by themselves powerful and indisputable agents. Rather, they make the leap of faith easier and less risky by providing a ground where alternatives can become commonly accepted. The Facebook groups, the Wikileaks cables, the blogs all show that any one person is not alone in a particular set of beliefs about the regime. Another form of common knowledge is allowed to take hold. It is not indubitable, and it may have been infiltrated, manipulated and it may in time be switched off - as has happened in Egypt. But the reality of the critique of the regime is believed to be commonly shared. That moment of catching someone's eye and deciding it is OK to act as if you are in the presence of a common soul has been moved online. In just the same way as dating sites have transformed the world of love, so social media have transformed politics: through the greater ease of making common knowledge. That is two arrows the web has sharpened: Cupid's and Freedom's.

***Introduction*, in Fuchs C. (2011), *Foundations of Critical Media and Information Studies*, New York: Routledge.**

The social networking site Facebook introduced a feature called Beacon in November 2007. The technology collects data about user activities on Facebook and on external sites (such as online purchases) and reports the results as stories on a newsfeed to the users' Facebook friends. Beacon collects usage data about users on other partner websites, even if the user is logged out from Facebook, and uses this data for personalized and social advertising (targeting a group of friends) on Facebook. The partner sites include for example eBay, LiveJournal, New York Times, Sony, STA Travel, or TripAdvisor. Users can opt out from this service, but it is automatically activated and legalized by Facebook's privacy policy. Many users were concerned that Beacon violates their privacy. The civic action group MoveOn (http://www.moveon.org/) started a Facebook group and an online petition for protesting against Beacon. Many users joined the online protest, which put pressure on Facebook because the corporation became afraid that a large number of users would leave Facebook, which would mean less advertising revenue and therefore less profit. In December 2007, Facebook founder Mark Zuckerberg wrote an email to all users and apologized. A privacy setting that users can opt out of the usage of Beacon was introduced. However, it is an opt-out solution, not an opt-in solution, which means that potentially many users will not deactivate this advertising feature, although they might have privacy concerns. An online survey among students who use Facebook showed that 59.9% have not opted out of Facebook Beacon (Fuchs 2009a). Facebook automatically uses targeted advertising. There is no way to opt out.

"We allow advertisers to choose the characteristics of users who will see their advertisements and we may use any of the non-personally identifiable attributes we have collected (including information you may have decided not to show to other users, such as your birth year or other sensitive personal information or preferences) to select the appropriate audience for those advertisements" (Facebook Privacy Policy; October 5, 2010).

Hearing such stories about Facebook has led many users to believe that Facebook and other profit-oriented social networking sites are large Internet-based surveillance machines (Fuchs 2009a).

The Pirate Bay (http://thepiratebay.org) is a Swedish web platform that indexes BiTTorrent files and enables users to search for torrents. BitTorrent is one of the most widely used Internet peer-to-peer file sharing protocols. In December 2009, Pirate Bay was the 107th most accessed web platform in the world; approximately 1% of all Internet users accessed it within 7 days (data source: alexa.com web traffic statistics, accessed on December 5, 2009). Pirate Bay has approximately 4 million registered users. This shows that it is a very popular tool. In 2008, Swedish prosecutors filed charges for operating a site that supports copyright infringements against the owners of the Pirate Bay. The International Federation of the Phonographic Industry sued the Pirate Bay for copyright infringements in individual lawsuits. In April 2009, the Pirate Bay operators were found guilty. The fixed penalties included prison sentences and fines in the amount of several million Euros. The Olswang Digital Music Survey, conducted by Entertainment Media Research in 2007, showed that 57% of Internet users aged 13-17 and 53% of Internet users aged 18-24 say that they have illegally

downloaded music from Internet filesharing site (data source: Office of Communications: Communication Market Report 2008, 81; N=1721). 66% of Internet users aged 15-24 say that it is morally acceptable to download music for free and 70% say they do not feel guilty for downloading music for free (Youth and Media survey 2009, N=1026, Office of Communications: Communication Market Report 2009, 278). The Swedish Pirate Party achieved more than 7% of Swedish votes at the elections for the European Pariliament in 2009. One of its demands is the reform of copyright law:

"All non-commercial copying and use should be completely free. File sharing and p2p networking should be encouraged rather than criminalized. Culture and knowledge are good things, that increase in value the more they are shared. The Internet could become the greatest public library ever created" (Pirate Party Sweden, Principles, http://www.piratpartiet.se/international/english, accessed on December 5, 2009). I

In September 2009, the German Pirate Party achieved 2.0% of the votes in the German Federal Elections. At the end of 2009, Pirate Parties existed in more than 35 countries. The popularity of Pirate Bay and the relative success of Pirate Parties on the one hand and the legal measures taken by the recording industry and the film industry on the other hand show that there is a fundamental conflict of interests between many young Internet users and the media industry.

In October 2009, student protests against the commodification and economization of higher education emerged at all Austrian universities. The students squatted lecture halls and demanded more public funding for higher education and the introduction of democratic decision-making structures in the universities. The protests spread to other countries like Germany and Switzerland. The students made use of social media such as Facebook and Twitter for organizing and communicating their protests (see: http://www.unibrennt.at). They also used Internet live video streaming for transmitting the discussions in the squatted lecture halls to the public. At several universities the debate emerged whether Internet live streaming brings primarily public support or poses primarily the danger that the planning of protest activities is monitored and that as a result protests will be disrupted by political opponents. A solution that was taken at some universities was that the Internet live stream was turned off when crucial organizational debates were conducted, but apart from that remained online.

Neda Agha-Soltan, a 27-year-old Iranian woman, was shot on June 20, 2009, by Iranian police forces during a demonstration against irregularities at the Iranian presidential election. Her death was filmed with a cell phone video camera and uploaded to YouTube. It reached the mass media and caused worldwide outrage over Iranian police brutality. Discussions about her death were extremely popular on Twitter following the event. The Iranian protestors used social media such as Twitter, social networking platforms, or the site Anonymous Iran for co-ordinating and organizing protests.

The newspaper vendor Ian Tomlinson died after being beaten to the ground by British police forces when he watched the G-20 London summit protests as a bystander on April 1st, 2009. The police claimed first that he died of natural causes after suffering a heart attack. But a video showing police

forces pushing Tomlinson to the ground surfaced on the Internet, made its way to the mass media, and resulted in investigations against police officers.

Austria and Ireland have two of the most highly concentrated newspaper markets in the world (Hesmondhalgh 2007, 173). The Herfindahl index allows measuring market concentration:

$$H = \frac{\sum_{i=1}^{n} h_i^2}{(\sum_{i=1}^{n} h_i)^2}$$

h_i… absolute value of the reach achieved by media group number i
H > 0.18: high degree of concentration
0.18 < H < 0.10: medium degree of concentration
H < 0.10: low degree of concentration
(Heinrich 1999, 230f)

Tables 1.1-1.4 show the readership shares of daily newspapers in Ireland and Austria and a grouping by ownership groups.

Table 1.1: Readership of Daily and Evening Newspapers in Ireland

Newspaper Name	*Owner*	*Readership (in Thousands)*	*Share*
Irish Independent	Independent News & Media	508	20.48%
Irish Daily Star	Independent News & Media	460	18.54%
The Irish Times	Irish Times Trust	319	12.86%
Evening Herald	Independent News & Media	317	12.78%
Irish Sun	News International (News Corporation)	289	11.65%
Irish Examiner	Thomas Crosbie Holdings	238	9.59%
Irish Daily Mirror	Trinity Mirror plc	219	8.83%
Irish Daily Mail	Associated Newspapers Ltd (Daily Mail and General Trust plc)	131	5.28%
	Total	2481	100%

Source: Joint National Readership Survey 2007/2008.

Table 1.2: Readership of Daily and Evening Newspapers in Ireland Structured by Ownership Groups

Owner	*Readership (in Thousands)*	*Number of Holdings*	*Total Share*
Independent News & Media	1285	3	51.79%
Irish Times Trust	319	1	12.86%
News International (News Corporation)	289	1	11.65%
Thomas Crosbie Holdings	238	1	9.59%
Trinity Mirror plc	219	1	8.83%
Associated Newspapers Ltd (Daily Mail and General Trust plc)	131	1	5.28%
Total	2,481		100%

Table 1.3: Readership of Newspapers in Austria

Newspaper Name	*Owner*	*Readership (in Thousands)*	*Share*
Kronen Zeitung	Mediaprint Zeitungs- und Zeitschriftenverlag Gesellschaft m.b.H & Co KG	2962	39.56%
Kleine Zeitung	Styria Medien AG	820	10.95%
Österreich	Mediengruppe Österreich GmbH	699	9.34%
Kurier	Mediaprint Zeitungs- und Zeitschriftenverlag Gesellschaft m.b.H & Co KG	612	8.17%
Der Standard	Oscar Bronner	352	4.70%
Oberösterreichische Nachrichten	J. Wimmer GmbH	336	4.49%
Tiroler Tageszeitung	Moser Holding	291	3.89%
Krone Kärnten/Neue KTZ	Mediaprint Zeitungs- und Zeitschriftenverlag Gesellschaft m.b.H & Co KG	273	3.65%

Salzburger Nachrichten	Salzburger Nachrichten Verlagsgesellschaft m.b.H.	254	3.39%
Die Presse	Styria Medien AG	252	3.37%
TOP Vorarlberg	Vorarlberger Medienhaus	222	2.97%
Vorarlberger Nachrichten	Vorarlberger Medienhaus	202	2.70%
Wirtschaftsblatt	Styria Medien AG	97	1.30%
Neue Vorarlberger Tageszeitung	Vorarlberger Medienhaus	58	0.77%
Kärntner Tageszeitung	Kärntner Druck- und Verlagsgesellschaft m.b.H.	57	0.76%
	Total	7,487	100%

Source: Media-Analyse 2007/2008

Table 1.4: Readership of Daily and Evening Newspapers in Austria Structured by Ownership Groups

Owner	*Readership (in Thousands)*	*Number of Holdings*	*Total Share*
Mediaprint Zeitungs- und Zeitschriftenverlag Gesellschaft m.b.H & Co KG	3847	3	51.38%
Styria Medien AG	1169	3	15.61%
Mediengruppe Österreich GmbH	699	1	9.34%
Oscar Bronner	352	1	4.70%
J. Wimmer GmbH	336	1	4.49%
Moser Holding	291	1	3.89%
Salzburger Nachrichten Verlagsgesellschaft m.b.H.	254	1	3.39%
Vorarlberger Medienhaus	482	3	6.44%
Kärntner Druck- und Verlagsgesellschaft m.b.H.	57	1	0.76%
	7,487		100%

The Independent News & Media group controls more than 50% of the Irish newspaper readership, the Mediaprint group more than 50% of the Austrian newspaper readership. The Herfindahl index is H=0.318 for Ireland and H=0.308 for Austria. This shows that the newspaper markets in Ireland and Austria are very highly concentraded.

I see power as "'transformative capacity', the capability to intervene in a given set of events so as in some way to alter them (Giddens 1985, 7), the "capability to effectively decide about courses of events, even where others might contest such decisions" (Giddens 1985, 9); and domination as the employment of means of coercion for influencing the course of events against the will of others. Power is a fundamental process in all societies; domination is a form of coercive asymmetric power relationship between dominant groups or individuals and dominated groups or individuals. Given these definitions, the examples just given show that the media in contemporary society are fields for the display of power, counter-power, domination, and sites of power struggles (for a discussion of communication power see Castells 2009 and Fuchs 2009b). Facebook controls millions of personal user data that it makes use of in order to accumulate capital. Capital is a form of economic power, the Internet is a communication power tool that Facebook uses in order to accumulate economic power. Facebook users cannot directly influence Facebook's management decisions and policies, so there is an asymmetric power relation between Facebook and its users. However, the example shows that Facebook users have tried to exert counter-power against Facebook's domination by making use of cyberprotest. The multimedia industry makes money profit by selling media products. Filesharers argue that a democratic media structure requires that media products should be freely available to all and therefore engage in sharing and downloading such goods over the Internet. The interests of these two groups conflict, the media industry tends to see filesharers as thieves of private property who negatively impact their profits, filesharers tend to see the media industry as exploiters of the cultural commons. Legal suits and continuous downloading are practices that shape the power struggle between these two groups. This struggle is oriented on setting the conditions for the access to cultural goods. The Internet is a field of conflict in this power struggle. The protesting Austrian students perceive the lack of public funding for higher education and undemocratic decision making structures within universities as forms of domination that they question and that they want to transform. They make use of social media for exerting counter-power against dominant structures that negatively impede their conditions of studying and living. Also the examples of the use of social media in Iran and the United Kingdom show that the Internet and mobile phones can be used as tools for exerting counter-power against domination. The examples of the Irish and Austrian newspaper markets illustrate that media concentration is a concentration of economic capital in the hands of dominant corporations who have the power to influence public opinions, policies, and consumer decisions.

The media are tools for exerting domination, power, and counter-power, they are power structures themselves, and spaces of power struggles. Critical media and information studies (CMIS) conduct analyses of the power structures and domination structures of the media. The overall aim of thIS book is to discuss what it means to study the media and technology in a critical way. Information and communication technologies have transformed the ways we live, work, communicate, inform

ourselves, engage in social relationships, form values, tackle political problems, etc. This book outlines foundations of a critical social theory of the media that is applied to example studies. It introduces basic theoretical concepts and questions of a critical theory of the media and explains how critical empirical media research works with the help of case studies.

I am convinced that CMIS needs to operate on three interconnected levels: critical social theory, critical empirical research, and critical ethics. CMIS consists of a critical theory of the media and information, critical media and information research, and critical media and information ethics. Based on this distinction, this book consists of three parts: Part 1 (Theory) discusses theoretical foundations, part 2 (Case Studies) provides example case studies, part 3 discusses potential alternatives to dominiative media structures (Alternatives). CMIS is based on the insight that academia is not separate from politics, but that political interests in heteronomous societies always shape academic knowledge production. If this is the case, then it is impossible for academic knowledge to be value-free, neutral, and apolitical. The claim that academia should remain apolitical is itself an ideological claim that frequently legitimates positivistic and uncritical research, which celebrates society as it is, and wants to delegitimize critical studies that aim at contributing systematic knowledge to the transformation of structures of domination into structures of co-operation and participation. CMIS is deliberately normative and partial; it supports and wants to give a voice to voiceless and oppressed classes of society.

The task of this book is to ground foundations for the analysis of media, information, and information technology in 21st century information society. Theoretical and empirical tools for critical media and information studies will be introduced. I discuss which role classical critical theory can play for analyzing the information society and the information economy. I also analyze the role of the media and the information economy in economic development, the new imperialism, and the new economic crisis. The book critically discusses transformations of the Internet ("web 2.0", "social media", "participatory media"), introduces the notion of alternative media as critical media, and shows which critical role media and information technology can play in contemporary society.

Part I (chapters 2-4) deals with theoretical foundations of CMIS. Chapter 2 focuses on how a critical theory of society should be conceived today and why such a theory is needed. It focuses on the role of base and superstructure in critical theory, the role of classical critical theory (Marx, Marcuse, Bloch, Horkheimer, Adorno, etc) for contemporary critical theory, and the difference between instrumental and critical theory. The role of the debates on public sociology (Michael Burawoy and others) and recognition/redistribution (Nancy Fraser, Axel Honneth) for contemporary critical theory are discussed. Furthermore three different understandings of what it means to be critical are identified, various definitions of critical theory are compared, and a definition of critical theory that has an epistemological, an ontological, and an axiological dimension is suggested. The role of dialectical philosophy for critical theory is discussed.

In chapter 3, the theoretical context and a typology of critical media and information studies are elaborated. Critical studies of media and information are distinguished from other forms of studying

these phenomena. A typology of critical media and communication studies is constructed. Example approaches for the commodity hypothesis, the ideology hypothesis, the alternative media hypothesis, and the alternative reception hypothesis are discussed. It is argued that integrative bridging approaches can be found and that a disciplinary matrix can enhance the dialogue about commonalities and differences within critical media and information studies.

Chapter 4 shows that Karl Marx's works are important theoretical foundations for studying media, information, and technology in contemporary society. A systematic discussion of the role of the media in Marx's works is elaborated. This discussion aims to show that other than assumed by many communication scholars, Marx provided foundations for the critical analysis of media, information & society that can be re-actualized for analyzing media and information in contemporary society. A model that allows showing the connection of the role of commodity- and ideology-aspects of media and information, media reception, and alternative media in capitalist society is introduced.

Part II (chapters 5-7) provides example case studies that show how CMIS operate as theoretically grounded empirical analyses. It is shown how methods such as statistical analysis and empirical ideology critique can be applied for studying the media in a critical way.

In recent years, the notions of imperialism, global capitalism, and capitalist empire have gained importance in critical globalization studies. Within the context of this discourse, chapter 5 deals with the question if the new imperialism can be characterized as informational/media imperialism. The problem of most approaches that speak of new imperialism, global capitalism, or capitalist empire is that they do not have a theoretically grounded notion of imperialism. Therefore the notion of imperialism is discussed and re-actualized. Based on this discussion, it is tested with macroeconomic statistical analysis of existing data if contemporary capitalism is a new form of imperialism and what role media and information play in this context.

Chapter 6 analyzes the role of the media and information industry in the new crisis of capitalism that was triggered by the collapse of the asset-based mortgage system and developed into a global economic crisis. Two broad groups of explanations for the new capitalist crisis are distinguished. For answering the question how the global information economy has been affected by the new economic crisis, economic data of 210 global information corporations for the fiscal years 2007 and 2008 are analyzed. The empirical sample allows drawing conclusions for the effects of the economic crisis on large corporations in the information economy as a whole and for various sub-industries. The component industries of the information economy that are analyzed in more detail are: the media content industry, the semiconductor industry, the software industry, the high-tech industry, and telecommunications.

The rise of web 2.0, "social networking sites" and "social software" has resulted in techno-optimistic claims that the Internet will bring about participatory democracy. Such optimistic observers interpret the fact that consumers of information also become producers (=prosumers, produsers) as the rise of a participatory culture and of a participatory media system. Chapter 7 argues that such approaches have an unclear notion of participation and that participation should

best be defined with the help of participatory democracy theory (Carole Pateman, Crawford Brough Macpherson). Based on this theory, the claims of contemporary approaches that we now live in a participatory media age are tested by contrasting them with the empirical political-economic reality of the contemporary media landscape. It is therefore argued that it is an ideology to claim that we live in a participatory media age and that it is more feasible to assume that the media have participatory potentials that can only be realized based on fundamental societal changes. The corporate-dominated web 2.0 is conceived as a class-structured, exploitative space. The chapter gives an example of how to apply theoretically grounded empirical ideology critique to media studies.

The media are not only structures of domination and fields for the exertion of domination. They are also potential tools that are used for struggling against domination and for organizing and communicating protest. Part III (chapters 8 and 9) discuss potential alternative usages of the media.

Chapter 8 discusses the notion of alternative media. It aims at developing a definition and to distinguish different dimensions of alternative media. The notion of alternative media as critical media is introduced. The characteristics of alternative media are explained based on critical theory. The category of critical media is connected to Oskar Negt's and Alexander Kluge's notion of the counter public sphere. Critical media are seen as the communicative dimension of the counter public sphere.

Chapter 9 identifies guiding principles for critical media and information studies. The dominative media structures that are characteristic for capitalist society are contrasted with the vision of commons-based media in a commons-based society. This vision is explained by discussing how an alternative Internet could look like and how struggles for an alternative media landscape are connected to struggles for an alternative society.

Who is Ruling the Internet?
Gender Sensitive Research into Internet Censorship as a Central Area of Internet Governance

Chat Garcia Ramilo
Association for Progressive Communication
Women's Networking Support Programme
chat@apcwomen.org

Jac sm Kee
Association for Progressive Communication
Women's Networking Support Programme
jac@apcwomen.org

Heike Jensen
Gender Studies, Humboldt University Berlin
dr.heike.jensen@web.de

Gayathry Venkiteswaran
Centre for Independent Journalism Malaysia
vgayathry@yahoo.co.uk

Sonia Randhawa
Centre for Independent Journalism Malaysia
soniarandhawa1@yahoo.com.my

ABSTRACT
"Internet governance" has been defined, since the UN World Summit on the Information Society in 2005, as any concerted action designed to "shape the evolution and use of the Internet". As such, Internet governance undoubtedly constitutes a complex new terrain of political, economic, technological and social power brokering. Concurrently, it also forms a new area of academic research, which would benefit from a strong gender angle. In our presentation, we will address Internet censorship and surveillance as one central area of Internet governance and explain how its research can be gendered. We have developed this gender research framework as a contribution to the ongoing censorship and surveillance investigation carried out by the OpenNet Initiative (ONI) in the Asian region. With our framework, we seek to lay open to academic scrutiny the ways in which Internet censorship may impact the power imbalances of societies, with the gender imbalance at the focus.

Keywords
Internet governance, Internet censorship, gender, OpenNet Initiative (ONI), Asia

INTRODUCTION
At the outset, I would like to thank the organizers of this conference for including this paper in the exciting program we are enjoying here in Bremen. On behalf of the OpenNet Initiative Asia gender team, I would like to present to you the research framework we are currently developing. We invite your feedback, criticism and suggestions alike.

My paper is structured as follows: First, I will say a few words about Internet governance. Then, I will provide a brief introduction to the OpenNet Initiative (ONI), to the "deep dive" research into Internet censorship and surveillance in Asia that it is currently conducting, and to its gender team. Next, I will explain how gender issues in Internet governance might be approached in general. And subsequently, in my main section, I will illustrate what a gender approach can illuminate with respect to Internet censorship and surveillance. Here, I will share the research framework with you that we are developing for the ONI Asia endeavor.

INTERNET GOVERNANCE
Internet governance constitutes a comparatively new political field. In fact, it was only at the UN World Summit on the Information Society in 2005 that it received a proper definition at all, stating, "A working definition of Internet governance is the development and application by governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet." (Tunis Agenda for the Information Society (WSIS-05/TUNIS/DOC/6(Rev.1)-E, 18 November 2005, para. 34.)

One kind of intervention that has a profound impact on the "evolution and use of the Internet" is Internet censorship and surveillance, which this paper will be centrally

concerned with. As instances of Internet censorship and surveillance seem to be multiplying, more and more researchers look into this field of national and international politics and practices. But as with many other vital new fields of inquiry, the development of a gender angle is something that still does not necessarily form an integral part from the outset. Therefore, it is quite significant that the OpenNet Initiative (ONI), as one of the leading groups of researchers in this field, has taken on board a gender team to inform its "deep dive" research into the Asian region from the beginning. As part of that team, I will now introduce ONI in some more detail.

THE OpenNet INITIATIVE (ONI)

ONI is a growing group that started roughly five years ago to investigate the technical and other restrictions that states employ to block access to Web sites and to track these restrictions over time and across states and regions. The initial ONI members came from the University of Cambridge, Harvard Law School and the University of Toronto. They were later joined by researchers from the Oxford Internet Institute and many other institutions around the world. ONI's principal investigators, who I am sure many of you know, are Ronald Deibert (Associate Professor of Political Science and Director of the Citizen Lab at the Munk Centre for Internet Studies, University of Toronto), John Palfrey (Executive Director of the Berkman Center for Internet and Society and Clinical Professor of Law at Harvard Law School), Rafal Rohozinski (former Director of the Advanced Network Research Group at Cambridge University (Cambridge Security Programme), principal with The SecDev Group), and Jonathan Zittrain (Professor of Internet Governance and Regulation at Oxford University and Jack N. and Lillian R. Berkman Visiting Professor for Entrepreneurial Legal Studies at Harvard Law School).

ONI publishes its findings at http://www.opennet.net, and the principal investigators just named also co-edited a book which came out in 2008, entitled Access Denied: The Practice and Policy of Global Internet Filtering (Cambridge, MA, London: MIT Press).

THE ONI ASIA RESEARCH

The Asia research began in 2008 and will continue throughout 2009. It carries the programmatic title "Making Internet Censorship and Surveillance an Issue of Public Policy and Advocacy Research for Civil Society". It is funded by the International Development Research Centre (IDRC) and encompasses the three concerns of research, advocacy and peer networking. With respect to research, it combines a censorship and surveillance mapping with a "deep dive" investigation of social, political, economic and regulatory contexts, processes and impacts. With regard to advocacy, it aims to facilitate a knowledge translation into public advocacy, civic engagement and policy formulation. And with respect to peer networking, it is committed to collaborative knowledge creation.

More than a dozen research teams are engaged in the ONI Asia endeavour. Most of these belong to civil society, but the private sector is also involved. One team will produce a documentary on digital censorship and surveillance in Asia as an intervention into discourse and advocacy. Two teams focus on institutions: The first investigates workplace censorship and surveillance in the Philippines, and the second will offer a workshop for bloggers in Singapore. Several teams concentrate on policy, looking at the Philippines, Myanmar, India in general and India with a special focus on gender and sexuality. A number of teams investigate practices and uses, and these encompass webboards in Thailand, blogs in Mainland China, the Intranet in Singapore and Malaysia, and practices and uses in Bangladesh. Finally, two teams are concerned with research epistemology: The first looks into how to ensure long-term sustenance of Internet censorship monitoring, and the second one is concerned with developing and implementing a gender research framework. The latter is what I will now speak about in more detail.

The gender research team members are Chat Garcia Ramilo from the Philippines, Jac sm Kee from Malaysia, Heike Jensen from Germany, Gayathry Venkiteswaran from Malaysia and Sonia Randhawa, currently based in Australia. Gayathry and Sonia are from the Centre for Independent Journalism Malaysia. Chat is the director of the Women's Networking Support Programme of the Association for Progressive Communications (APC WNSP), and Heike and Jac are members of APC WNSP as well. So these were the introductions, and now we will turn to how gender can be conceptualized for Internet governance in general.

GENDER CONCEPTS AND INTERNET GOVERNANCE RESEARCH

Let's start out with a definition of gender to make sure we are all on the same page. Gender can be taken to refer to the "social and cultural aspects of sexual difference". Other ways of socially differentiating people intersect with gender, e.g. race, class and region, so that many gender groups emerge, e.g. white women and black women, and can be looked at in sufficient sociological and historical detail. Gender is not only important with respect to people individually, but also operates at symbolic and structural levels, i.e. language, discourse and ideology on the one hand and institutions and spaces on the other.

In most contexts in which gender becomes salient, gendered meanings go hand in hand with social hierarchies. Thus with respect to Internet governance, a major interest for gender analyses lies in finding out how power balances or imbalances of a given society are affected through it (e.g. if new elites arise, if policies are designed to perpetuate the privileges of specific groups or to abolish them etc.). In thinking about how to engender research into Internet governance, three approaches to gender issues suggest themselves: the "women" approach, the "hegemonic masculinity" approach, and the relational gender approach. I will briefly discuss each of these in turn.

The "women" approach is most prevalent in politics in general and usually involves trying to establish how women's position in society differs from that of men and trying to establish special measures for women's equality on that basis. Inspired by the United Nations, several tools exist for the approach. For measuring women's status, there is the GDI and the GEM. GDI stands for gender-related development index and compares the life expectancy and health, education and standard of living between men and women. A low GDI score of a country means that there is a big gender gap in this country. GEM stands for gender empowerment measure, and it assesses women's participation in politics and the economy, i.e. their possibilities of decision-making about how societies develop. Within the field of ICTs, increasingly there are gender-disaggregated statistics available of who has access, what use they make of this access, and where women and men are regarding training, university degrees, research and development, careers and decision making. Regarding legal tools for gender equality, the most important one is CEDAW, the Convention on the Elimination of all Forms of Discrimination against Women, which most countries of the world have become parties to by now. And with respect to governance and administration, many countries have adopted Gender Mainstreaming requirements. The "women" approach is thus useful for obtaining basic data about the status of women and their entitlements in a specific country, which can be used as a baseline for investigating how censorship impacts the gender setup.

The "hegemonic masculinity" approach is useful for understanding the male hierarchies that perpetuate patriarchal relations. This approach was popularized by R.W. Connell in the academic strand of masculinities studies or critical men's studies. The approach refers to different kinds of masculinity which are positioned in a hierarchical relationship: Hegemonic masculinity is at the top, and rules over subordinated masculinity, e.g. embodied by gays, and marginalized masculinity, e.g. relegated to black men. Those ruled over are generally complicit with this setup and with hegemonic masculinity. What is generally beyond the pale of this approach is complicit femininity on the one hand and resisting masculinity and femininity on the other. Yet the approach is useful because it brings into focus the acts and mechanisms by which men on the one hand create a hierarchy among themselves and on the other seek to re-create their joint predominance over women. Such an approach can also be particularly useful for understanding North-South collaborations and contestations.

To truly understand how different gender groups, both male and female, interact and create the societies we live in, a gender approach would be required that works out the relational dynamics, including the shifting relationships between women's status and agency and the male contestations for hegemonic masculinity or its abolition. This relational gender approach is a vast endeavour and therefore more of a gender studies ideal than something that comprehensively characterizes each contribution to gender studies. So how can these gender concepts be operationalized for researching Internet censorship and surveillance?

ENGENDERING INTERNET CENSORSHIP AND SURVEILLANCE RESEARCH

We propose to think about gender at different levels, following these eight lead questions:

1. What gender context characterizes the country?
2. Who decides on censorship and surveillance matters?
3. Which logic, rights or norms underpin the decisions around censorship and surveillance?
4. Which aspects of internet use are censored or surveilled?
5. Who is censored or surveilled?
6. Who executes censorship and surveillance?
7. Who earns from censorship and surveillance?
8. Who is affected by censorship and surveillance?

The "who" questions provide easy entry points for gender surveys, because actual men and women are at issue. At the same time, ideological and structural issues come into play at all levels, as I will show in what follows when I explain how we suggest the lead questions may be broken down and approached by the research teams.

1. What gender context characterizes the country?

In order to understand the gendered dimensions of censorship and surveillance, a basic understanding of the situation of women and men in the country under investigation is required. This includes some demographic information as well as information about the rights of women. Regarding the gender context of a country, we thus ask about its GDI and GEM scores as well as statistics about a possible gender digital divide. We also ask about women's human rights legislation and requirements for gender mainstreaming and affirmative action.

2. Who decides on censorship and surveillance matters?

The decisions about the definition, scope, actions and actors involved in censorship and surveillance can be triggered by different actors and in different ways, for instance women and/or men in political processes, informal bodies such as mass media or religious institutions, or businesses such as ISPs. With respect to the decision makers on censorship and surveillance, on one level we ask about the female-to-make ratio at the decision-making level in the respective institutions and the degree of gender awareness of the decision makers. On another level, we are also concerned with the breadth and interplay of institutions and their "gendered cultures". This includes women and/or men in formal political bodies and processes (e.g. in democracies differentiated into legislative, executive and judicial branches), in informal bodies such as expert groups, think tanks, and public organizations, in the aggregate termed the "public" and in the private sector, most notably Internet

Service Providers (ISPs). Not only the institutions, but also the decision-making processes are important to consider in terms of which social groups they strengthen or weaken, either directly or indirectly. The questions here range from the tone of conversation to the costs involved in participation, including the availability of child-care facilities during the decision-making process.

3. Which logic, rights or norms underpin the decisions around censorship and surveillance?

The power to influence the discourse around censorship and surveillance is very likely unevenly distributed within society, so that the principles, assumptions, realities or priorities of some social groups tend to predominate. The discussions and decisions regarding censorship can follow different kinds of argument and logic, invoking a whole range of rights and norms. Also, argument and logic need to be differentiated: Arguments are expressed overtly and can form part of public justifications or discussions. To understand which logic is used, a discourse analysis is helpful because it goes beyond this manifest content to simultaneously unearth taken-for-granted assumptions and blind spots in the argumentation. Gender-relevant variations in pro-censorship stances could for instance involve notions of maternal concern, paternalistic sovereignty tied to a state, a religion, or other forms of centralized control, hegemonic business masculinity and ideas about a masculine technological battle of wits. Concurrently, the assumptions at play may not take into account women's as well as men's lived realities but may be articulated from a male default position. For instance, if privacy is invoked, it may be forgotten that women, due to their positions in the home and in the job market, have different privacy concerns than men. In this overall context, it is also important to consider if different social groups champion different rights or norms, and if trade-offs or a ranking among their positions occur.

4. Which aspects of internet use are censored or surveilled?

A common sense question regarding censorship is of course what precisely is censored or outlawed. However, the answer may be more diverse than any general public debate might suggest, given that many debates quite one-sidedly focus on content issues such as child pornography. If content is at issues, it can range from items considered "undesirable" such as pornography or hate speech to items considered quite valuable and hence protected by intellectual property rights. Beyond content, technologies such as VOIP or GPS may be censored or outlawed, and practices such as blogging may be hindered. In this context, a central gender question is if and how the censored content, practices or technologies are linked to gender-specific behaviour on the Internet.

5. Who is censored or surveilled?

Censorship may target "bad" people such as alleged perpetrators of crime or abusers of technology, but it may also be directed at "good" people such as alleged victims or general users to "protect" or "direct" them. Here, it is helpful to initially differentiate input users and output users. Input users are generally the alleged perpetrators or subjects of "crime". Output users are either the alleged victims or objects of protection, e.g. minors, or they are those seeking to access, make use of or profit from the "outlawed" input, e.g. audiences for pornography. An exception to this rule is children supposedly putting themselves at risk by making available too much information about themselves, e.g. in chatrooms, in which case they are input users and simultaneously objects of protection. Furthermore, censorship or surveillance may be tied to specific locations such as cybercafés or libraries and thus targeting their customers or clients, which may include input and output users. The question of who is censored or surveilled is of course also concerned with the gender stereotypes that may play into the picture that is drawn of them publicly. To give some examples of male gender stereotypes, input users may be targeted as terrorists, greedy businessmen doing illegal things or male computer-nerd spammers. Output users may be conceived as gamblers or sick paedophiles. In scenarios in which censorship and surveillance appear like processes with which men predominantly target other men, this would invite discussion under the hegemonic masculinity approach. Important questions to also consider are whether people are aware of the censorship and surveillance targeting them, and if there is a process in place for them to object or seek redress.

6. Who executes censorship and surveillance?

Different persons or entities may be called upon to execute censorship or surveillance. A central role is often occupied by women and men working in ISPs, for instance those offering hosting, or content and services such as search engines, or output access. But beyond ISPs, women and men in many other capacities and institutions are also required or expected to engage in censorship and surveillance, for instance library and school personnel or parents. In this context, it is important to understand how strong the legal, social and other forms of pressure are on these women and men to censor or surveil, how eager these persons and institutions are to comply, and whether they receive forms of compensation for their services from those asking them to censor or surveil.

7. Who earns from censorship and surveillance?

The question of who earns and builds careers recognizes that censorship and surveillance give rise to new forms of businesses and expertise, so that for instance women and men in software companies, consultative roles or regulatory authorities may gain income, profit and prestige from these practices. If new business and political elites are emerging in this context, it is of course vital to trace who these are. This needs to be done with reference to the gendered occupational cultures that exist in most societies, taking into account how these cultures may perpetuate themselves from generation to generation or may shift. Thus a consideration of the mechanisms that allow people to participate are required, including gendered barriers to participation such

as educational disparities or masculinist cultures in science, technology and national security.

8. Who is affected by censorship and surveillance?

This question takes note of the fact that the impact of censorship goes well beyond those directly targeted and creates a pervasive social reality as well as collateral damage. As for collateral damage, targeting pornography may for instance also lead to a blocking of health-care information, or even of diplomatic information, given that the word “embassy” contains the letter string ASS. Regarding more pervasive impacts, differently constituted “imagined communities” may be affected, e.g. women and/or men as citizens, consumers, private individuals or “legitimate” and "illegitimate" subjects. At issue here is the larger effect of censorship on society in all spheres, from the political to the economic to the social, including a possible reconstitution of what is understood as a public and private sphere or activity. Concurrently, what is also at issue are the differential benefits and burdens related to these shifts and whether there is a gender dimension to them.

CONCLUSION

With our research framework, we seek to encourage researchers to take note of and think through the different gender dimensions pertaining to censorship and surveillance. At the most obvious level, real women and men are involved, wielding, negotiating and experiencing power. At the same time, institutions and discourses may evoke gendered meanings, logics, prerogatives and exclusions, which are brought into play in the discussions, decisions, actions and reactions concerning censorship. Thus an incredible breadth of issues and "imagined communities" become pertinent when a gender lens is brought to researching censorship. An understanding of this breadth is particularly vital in view of the fact that the complex of gender and censorship has often been equated with and hence reduced to issues of pornography in the public debate. This equation and reduction can be understood as only one specific manifestation of gender ideology that is at times mobilized for discussions around censorship. Our aim is to make accessible to academic scrutiny both the manifest and the underlying gender dimensions involved in censorship, including, as one point among many, the functions of gender-blind rhetoric and the use of gender stereotypes bolstering hegemonic masculinity.

With this gendered approach, a clearer understanding of the power dynamics surrounding censorship can be developed. Not only does this make obvious how censorship as an important field of Internet governance has been shaping societies and the power relationships within them, but by extension, it also shows that gender analyses can contribute substantially and systematically to understanding Internet governance scenarios and mechanisms and their impacts in a nuanced way.

Gurstein M. (2011, 11 February), ***Immiserating the Poor: We Have An App For That (Social Media vs. the iPhone in Egypt and a Kenyan slum)***[1]

As others, I have recently been transfixed by the Economist's recitation of wondrous examples of:

"Development 2.0"—meaning a mobile-driven transformation of how poor countries develop… the potential of mobile services should not be underestimated. If they take off, they could transform lives and livelihoods, not just by connecting the world's poor to the infrastructure of the digital economy, but by allowing them to become digital producers and innovators.

So, I was interested in following up on the below as perhaps a useful example of these magical functionalities.

Can ICT Improve Clean Water Delivery Systems in Slums? Lessons from Kibera CDDRL, PGJ, Program on Liberation Technology, Stanford University

Water is scarce, costly, and contaminated in Kibera, Nairobi — one of Africa's largest urban slums. On good days, the women and children spend just under an hour finding clean water in their community. On bad days, the price of water increases tenfold and the search takes all day. Often, people ask jokingly whether it is water or cholera they are buying.

Access to clean water is a significant problem in Kibera, a slum with some 250,000 to 1,000,000 residents (estimates vary wildly) but which has no permanent sewer or water system and with an average daily income of approximately US 1.00. As the population has grown, depending on the time of year and the prevailing weather there may be significant shortages of clean water to the point where:

"residents of the slum, which has no public water or sewer system, pay 3 shillings to fill used 20-liter cooking oil jugs with fresh water from a Coke-sponsored well. At a new bathroom Coke is helping to build in the poorest section of the slum, it will cost 2 shillings to use the toilet or the shower. Kimeu buys soft drinks as many as four times a week. It's not a treat. She's mostly just thirsty. A seamstress, Kimeu earns about 1,000 Kenya shillings ($12) a week when business is good. At 35 shillings a bottle, the soft drinks consume 14 percent or more of her income."

The project description goes on:

Many slums like Kibera lack access to clean drinking water, but they don't lack access to mobile phones. This is the insight behind M-Maji, a start-up non-profit project that uses mobile phones to empower communities with better information about water availability, price, and quality. …

The blog site associated with the project goes on to describe the project and the app which it has produced…

Step 1: At the start of each day, water vendors notify M-Maji … that they have water to sell, the price they are selling it for, and where they are selling it. They also have the option to advertise the last date of water purification and the results of any recent water testing. All of these vendor

1 Retrieved from https://gurstein.wordpress.com/2011/02/11/immiserating-the-poor-we-have-an-app-for-that-social-media-vs-the-iphone-in-egypt-and-a-kenyan-slum/, 22 April 2011.

notifications from across Kibera are collected and stored in a central M-Maji database in real-time.

Step 2: Water buyers who are searching for water initiate a …session with M-Maji, to generate a location-relevant listing of local water vendors who have notified us that day that they have water to sell, the price they are selling it for, where they are selling it, the date of last purification, and their vendor ratings

Step 3: If a water buyer subsequently finds out that a vendor misreported water availability, price, or quality, the buyer can file a complaint with M-Maji. The database will keep track of complaints and alert future buyers of such negative histories through the use of vendor ratings.

M-Maji is designed to improve access to clean water by empowering residents with better information about water availability, price, and quality. By coordinating and centralizing water information from multiple sources, it provides to users information that might otherwise be unavailable (e.g., through gossip and word-of-mouth). It also does so in a way that is economically sensitive, relying on basic GSM phones that are broadly accessible in slum communities and operating free of cost for users (USSD costs subsidized). Data accuracy is encouraged by the vendor rating system and the M-Maji support team on the ground, who will monitor the quality of our data through regular surveys and random evaluations (for example, through drop-in testing of water quality). Water sources that fail M-Maji tests are clearly red-flagged to alert consumers of contamination.

M-Maji…, by providing better water information to consumers, …might not only reduce the individual burden of finding clean water and increase its uptake, but also equalize water prices across villages of Kibera, making clean water affordable and accessible to larger segments of Kibera's population.

What I understand is that the system provides for individual cell phone users (those with the financial resources to own and use a cell phone for this purpose) to acquire "information about water availability, price, and quality". This information will give the subscribers an "information advantage" in being able to locate scarce and expensive water supplies as they are made available by the private water entrepreneurs in Kibera. Those with the cell phone, the app and the skill and knowledge to use these, and importantly the financial means to compete in the marketplace for access to the privatized supply will be able to satisfy their water requirements. As well, if the app works as the designers would like there will be a group-sourced assessment of the quality statements of the water and the water suppliers.

Of course, helping people to find clean water at a competitive price in an environment where there is overall a water scarcity is a very commendable activity. However, it should be noted that this is precisely the justification that those such as the World Bank and those corporate forces working to privatize water systems globally use as their public justification for attempting to seize and privatize previously public water resources .

Moreover, what I come away with from the description above is not a picture of happy people playing with their iPhones and chatting pleasantries as they meet up with the cheerful water supplier

in their neighbourhood. Rather I have images of anxious parents frantically typing queries into their cell phones so as to be the first to access scarce clean water; and then racing to the site and then scrambling and jostling, climbing one over one to be the first in line, for the water promotion of the day offered to the first 5 clients to reach the local water truck. I also have images of those who for whatever reason don't win in this mad race or who because of extreme poverty or other reasons can't make use of the app and participate in this marketplace having to make do with whatever dribs and drabs of water, however impure, that are left over. In short I have an image of a Hobbesian survival of the fittest hell.

The fundamental problem with all of this comes in the failure to distinguish between the residents of Kibera as consumers using their cell phones and this "shiny app" to pursue their individual consumer dreams, and the residents of Kibera as citizens who could and should be insisting on the availability of water as a right of residence or alternatively developing some community based collaborative approach to responding to the water crisis.

The Nairobi Chronicle, a local newspaper, in a discussion on services in Kibera presents the following:

Clearly, the solution lies in rehabilitating to full capacity all the sources of Nairobi's water supply. There is need to restore the forests of the Aberdares in order to attract rain and help store water through natural means. It will be necessary to disconnect fresh water supply to flower farms, whose produce anyway does not benefit the ordinary people. The Nairobi Water Company should become more efficient by stopping illegal connections that deny the city of revenues needed in maintaining the water system.

Allowing for a privatized and individualized approach to water provision simply means that those with the resources—to own and use cell phones, to devote time to chasing water suppliers and standing in water queues, and to financially compete for scarce water supplies in the local water marketplace–will be well served and those who don't have those resources will be left behind and forgotten.

As well, by advantaging those who are the most able – the most technologically sophisticated, the wealthiest, the youngest and the most agile in the community—the possibility of developing community and collaborative strategies for addressing these fundamental issues will be drained away since those most able to respond effectively will have their needs met (and not incidentally as the description boasts, more efficiently and at a better price). If the actions of those immensely brave people demonstrating for democracy in Egypt and Tunisia, teaches us anything it is that major social issues such as the provision of clean and low cost water must be addressed by collective action rather than responding simply to individual actions which by their very nature in this context would be competitive, divisive and collectively disempowering.

The only long term solution to the provision of water in Kibera as a fundamental human right of citizenship is surely not the neo-liberal response of setting up a water "market" (which this app would seem to be enabling). Rather the solution must be as for many of those who have rejected attempts to impose water privatization from above, the development of means to ensure that there is

a public will to provide clean and abundant water for all and not simply those who are privileged whether by locality or by their access to ICTs and this particular ICT app.

As a final observation, what seems to emerge from the above reflections is the way in which much of mobile (Development 2.0) development would appear to be based on individualistic approaches to self-improvement. What is particularly interesting watching the events in Egypt and Tunisia unfold is the way in which social media such as Facebook, YouTube and Twitter interact with, reinforce and facilitate the creation of solidarity and collaborative/community responses to widely shared issues.

The app culture is one of individuals and individualized approaches. Apps enable and empower the individual as a consumer, as a communicator, as an information handler. However, many of the major issues in a developing world (and other) environment are not ones that lend themselves readily to individualized responses or individual solution. Issues involving citizenship and particularly the rights and responsibilities of citizens including political behaviours and governance, human rights, land rights, water rights and so on are often highly political and highly contentious with huge financial interests involved and where individuals no matter how empowered they may be matter for little against entrenched political power and financial strength.

Many of these latter issues can only truly be addressed through collective—solidaristic—responses and in this, privileging the individual may only serve to empower the already empowered. What we are seeing with the events in Tunisia and now in Egypt is the role and value of solidarity and how there can be a symbiotic and synergistic relationship between the social connections formed and maintained electronically and the creation of social solidarity in the street for political power and the realization of the collective/universal rights of citizens.

Perhaps the good folks in the Liberation Tech program might consider working on a social media application that would help to organize and empower the people of Kibera to agitate for a general solution to the problem of clean water or even better to organize a community response to the long term issue as for example outlined in the quote from the Nairobi Chronicle above.

The Right to Political Participation and the Information Society

Hans Klein
Associate Professor of Public Policy
Georgia Institute of Technology
Atlanta, GA 30332-0345 USA
hans.klein@pubpolicy.gatech.edu

Presented at
Global Democracy Conference
www.G05.org

Montreal, May 29 – June 1, 2005

The right to political participation refers to citizens' right to seek to influence public affairs. Political participation can take many forms, the most notable of which is voting in elections, but also including joining a political party, standing as a candidate in an election, joining a non-governmental advocacy group, or participating in a demonstration. The foundational legal articulation of this right can be found in the UN's 1948 Universal Declaration of Human Rights, and it has been further formalized and elaborated in later treaties, most notably the 1976 International Covenant on Civil and Political Rights. As currently implemented by the UN, various operating entities assess signatory states' respect for this right and, when violations are determined to have occurred, may call on states to changes their practices.

One aspect of the right to political participation merits special attention: its status as a *political* right. The right to political participation is restricted to *citizens*. Whereas the other rights recognized in the Covenant inhere in human beings on the basis of their status as human beings, the right to political participation is limited to people endowed with the status of citizen. Such a status does not exist in isolation. A person can be a citizen only in the context of a political community and, most significantly, a government, and thus the right to political participation presupposes the existence of a government.

With respect to the information society, this presupposition of a government raises a potentially thorny issue. Does the information society have a government? Are there citizens in the information society? If there is no government of the information society, then there may be no citizens, and if there are no citizens, then there may be no citizen rights. Thus the right to political participation in the information society hinges on whether that society has a government.

I consider two classes of institutions that might be considered governments of the information society. The first (and less interesting possibility) is that existing political institutions – national governments – constitute the government of the information society. In that case, citizenship and rights in the information society are not different than they are in society generally.

The second, more novel possibility is that the information society is a society in its own right and has its own political institutions. In this second view, public affairs in the information society are conducted in political institutions separate from existing national governments. These new institutions constitute "governments," the people participating in those governments are "citizens," and the right of political participation applies to those citizens. I explore this line of thinking

with respect to two candidate political institutions for the information society: the free and open source software movement (FOSS) and the Internet Corporation for Assigned Names and Numbers (ICANN).

In what follows, I first summarize the international legal instruments that define the right to political participation. Then I consider that right in relation to two conceptualizations of the information society, one as an information-rich society and the other as a distinct society. I conclude with some reflections on the need to define and enforce rights in the new institutions of governance and public affairs.

Right to Political Participation

Two foundational instruments define the right to political participation: the 1948 Universal Declaration of Human Rights (Declaration) and the 1976 International Covenant on Civil and Political Rights (Covenant). The Declaration is a statement of general principles. Since it is not a treaty, the standards of behavior that it defines have the status of only non-binding norms, but the document is nonetheless of enormous legal and political importance, for it provided the foundation not only for later legally-binding international treaties but also for many national governments' rights frameworks.

Ratified almost three decades years after the Declaration, the Covenant is similar to the earlier document in its content but enjoys the status of international law. As a binding treaty, the Covenant imposes some obligations on signatory states and includes some compliance mechanisms.

The right to participate is spelled out in similar language in the Declaration (Article 21) and the Covenant (Article 25). Article 25 of the Covenant states:

> "Every citizen shall have the right and the opportunity, without … unreasonable restrictions:
>
> (a) To take part in the conduct of public affairs, directly or through freely chosen representatives;
>
> (b) To vote and to be elected at genuine periodic elections which shall be by universal and equal suffrage and shall be held by secret ballot, guaranteeing the free expression of the will of the electors." (quoted in Steiner, 1988)

This right has some distinguishing characteristics. As noted above, it is a political right that presupposes a political community with individual members (citizens) and with an organizational form (government). The Covenant and the Declaration refer to this political status differently, with the Covenant referring to "citizens" ("Every *citizen* shall have the right …") and the Declaration referring to "government" ("Everyone has the right to take part in the *government* of his country…"; emphases added.) With both formulations conditioning the right to participation on the existence of political institutions, it is clear that the right to participation does not exist as a human right per se but only in the context of the political institutions of citizenship and government.

The Covenant refers to participation in both a general and a specific form. Participation in its general form is "to take part in the conduct of public affairs". Public affairs might include the activities of civic associations, neighborhood groups, social movements, and social clubs, as well as formal procedures of governments. Thus although participants in public affairs must be citizens, the domain of action is not restricted to formal political institutions but also includes social activities of a public nature. The second form of participation is more specific: elections. Elections are just one mode of public participation, but they are widely recognized and utilized. Whether a central element in a political system or just a limited one, whether open to all citizens or just some, most governments incorporate some kind of elections in some part of their system. As the one mechanism specifically identified in this treaty, elections are assigned a special importance for participation.

The Covenant also suggests criteria for citizenship. Since different political systems have historically conditioned citizenship on various factors, such as wealth, gender, race, age, and mental capacity, the criteria of citizenship are always an important element of participation. The Covenant's language on elections refers to "universal and equal suffrage," which

suggests that citizenship should also be universally and equally available. Who can enjoy citizenship and the concomitant right of political participation remains undefined, but the implication is for an inclusive definition.

Nearly 150 states have signed the Covenant, thereby agreeing to respect and implement the rights defined in the treaty. In operational terms, the treaty is implemented in a Human Rights Committee comprised of eighteen individual experts. Signatory states must periodically submit reports on their treaty compliance to the Committee, which then holds additional public sessions where non-governmental organizations can participate. The Committee gives a critical review to the reports and issues its own comments. Although its comments are not legally binding, they can bring public attention to states' practices. Ultimately, the Covenant does not benefit from strong enforcement mechanisms. The treaty did not create a Human Rights Court able to give an authoritative interpretation of the treaty's terms, and the Human Rights Committee has little real power (Nickel, 2003).

In summary, the right to political participation is restricted to citizens but allows them to take part in all public affairs of their country, with special emphasis on participation in elections. Next I consider its relevance to the information society.

Society in the Information Age

People increasingly live in information-rich societies. The creation, manipulation, and distribution of information have become some of the most important activities in today's world, be they in the domains of economics, culture, or politics. The importance and ubiquity of information is striking.

For our analysis of human rights, an important question is how to conceptualize this information-rich society. How novel is it? Is today's society fundamentally the same as it has always been? For example, for a resident of a US city is the society he or she lives in richer in information but still recognizably US society? Or are we experiencing something so novel that it constitutes a new kind of society, something we can call an "information society." Does that US resident now live in two societies – US society and also an information society? Is the information society distinct?

The status of society is important for questions of political rights. Political rights exist in the context of governments, and governments exist in the context of societies. The modern state is defined not only by its territory but also by the society over which it rules. If today's information-rich society is coeval with existing society, then the existing government and the existing rights apply to that society. In this case, the right to political participation exists as we know it: it is a right established by international treaty and enforced by UN entities on national governments. The right to political participation in an information-rich society is not different that it was in less information-rich times. For example, we already know that US society is governed by the US government, and we know (more or less) the status of political rights in the US. As US society adapts to the information age, questions of human rights in the contemporary information-rich US society are still questions about human rights in the US. These are interesting questions, but they are also familiar.

Political participation might consist of seeking to take part in public affairs on information. Citizens might seek to influence tax policies for e-commerce, the regulation of online content, the definition of new forms of intellectual property, or the setting of privacy protections. Despite the novelty of the policies, the nature of public participation could be quite conventional. Citizens could vote (e.g. for candidates promising greater information security,) they could sign petitions (e.g. against surveillance,) they could demonstrate (e.g. against online pornography,) and so forth. In so doing, they would be exercising their right to political participation. Should their government violate that right, the violation might be a candidate for review and possible comment by the UN entities that enforce the 1976 International Covenant on Civil and Political Rights.

It is worth noting that even if the status of a political right is not significantly changed, information systems may create more opportunities to exercise that right. An information-rich society offers powerful new means to exercise the right to political participation. For example, as the technology of voting changes, electronic voting systems offer benefits and risk for elections (Kohno et al., 2004). As the technology of public forums changes, Email lists facilitate the formation of citizen associations (Klein, 1999). Election campaigns are also being transformed by the Internet (Bimber and Davis, 2003). In the information society, the mode of participation changes as numerous new technologies become available. Still, these new modes apply to participation in established institutions according to established rights.

The situation is considerably different if the information society exists in its own right. In that case, existing institutions no longer apply, and we need to reconsider our notions of society, government, citizenship, and right.

The Information Society

The claim that there exists an information society in its own right is most strongly made with respect to cyberspace. A not insubstantial literature makes the claim that when we log on to the Internet we leave physical space behind and enter a different dimension of existence with unique properties and unique social relationships. In cyberspace, personal identity is malleable (Turkle, 1984). We are freed from our physical appearances: "no one knows you are a dog" (Steiner, 1993). We enter an "electronic frontier" where rules of social behavior are not firmly established and there are no law-making authorities (Rheingold, 1993). We find an "Internet community" there that designs its own world through "rough consensus and running code" (Huizer, 1996). This information society is an "unregulable" place of benevolent anarchy (Lessig, 1999), where the sovereigns of the physical world have no power (Barlow, undated). In cyberspace people cooperate and produce information and knowledge in a manner that seems to contradict existing societies' laws of economics (Litman, 2001). Space ceases to exist as people from around the world interact in immediate relations. Although there have existed systems of global communication that predate the Internet, cyberspace is unique in that it is a global *social* system where people immediately coexist and interact. In all these ways, cyberspace constitutes a distinct, separate, and autonomous "information society."

As opposed to the vision of an information-rich society described earlier, this information society is novel and distinct. No existing governments seem appropriate to exercise sovereignty over it. It presents fundamental puzzles about politics. What are the public affairs in this society and where are they conducted? Does the information society have "information citizens" who conduct their public affairs in an "information government"? Increasingly, we can find answers to these questions. The information society does have its public affairs, and these public affairs are conducted in specific locations.

I consider two settings for public affairs in the information society. The first is the free software movement, and the second is ICANN.

In his book, *Code*, Lawrence Lessig (1999) argues that public decisions about the information society are made in processes of software development. Public policies for the information society are realized not by governmental decision but by technology design. For example, a technical standard may enhance or inhibit the anonymity of the user of a computer network, or copy-protection software may effectively define the fair use rights of copyrighted materials. The properties of cyberspace are not fixed but can be designed (and redesigned) to embed values and governance capabilities in the system. In this way, the design of code is similar to the design of regulations. Code can make some behaviors impossible and others unavoidable, just as laws may make some behaviors legal and others illegal. Code is law.

There is an important difference between code and law, however. Law is produced in political institutions, whereas software is not. Citizens have a right to participate in legislative processes in political institutions; they can have a voice in the production of law-based regulations. In software development they have no such right. The design of software is not categorized as a political activity, and it does not occur in political institutions. It occurs in private forums, such as standards-setting committee, or simply within a single private company (Microsoft, for example). Although the decisions made in such places may have broad social impacts, access to the decision process may be forbidden. There is no right to participate in the internal processes of private firms, even if that firm's software design decisions shape the information society.

Lessig finds a remedy to this situation in the free and open source software movement (FOSS). Software development processes in FOSS are open and participatory. This transparency makes it difficult for any entity to embed its interests or values into the software. The FOSS software development process ensures that any regulatory features are publicly vetted. In FOSS the characteristics of the process are well matched to the characteristics of the product: code that is law is developed through an open and transparent process that resembles good legislative procedure.

Indeed, public interest political groups have participated in code development. In the US, the Center for Democracy and Technology (CDT) currently operates a project on Internet Standards, Technology and Policy in which it publicizes policy-relevant features of technical standards. That projects seek to "provide the public policy community with a … window into

the Internet technical standards processes and the possible impact of new technical standards on issues of public concern" (CDT, 2005). CDT has identified and publicized law-like features of code in geo-locational and telephone numbering ("ENUM") standards.

FOSS processes allow for greater political participation, but they do define a formal right to participate. Software development activities are loosely structured, and there is no status of "citizen". Expertise rather than citizenship determines who can shape code. Openness and transparency serve to protect the public interest.

The second example of a governance institution in the information society is the Internet Corporation for Assigned Names and Numbers (ICANN). Created in 1998, ICANN is the global authority for allocating Internet identifiers (including Internet Protocol addresses and domain names). It ensures that no two servers use the same identifier and that Internet addressing operates in a stable manner.

Although frequently described as a purely technical body, ICANN conducts public affairs. Its decisions have policy content. ICANN defines intellectual property rights in domain names (e.g. "apple.com"), it sets the base price for domain names, and it controls access to the domain name retail and wholesale markets (Klein, 2002). Utility pricing, property rights definition, and market regulation are all classic public policy powers. The information society is regulated in important ways by ICANN.

Yet ICANN was incorporated as a non-governmental corporation. As such, with the public affairs of the information society conducted in a non-governmental (private) institution, the right to political participation does not necessarily apply. (At the time of this writing, ICANN remains legally subordinate to the US government, so its non-governmental status was never fully realized. This is addressed below.)

As originally designed, ICANN's corporate bylaws did take account of its political functions. ICANN's designers recognized that they were creating a quasi-political institution, and they included mechanisms for popular sovereignty by the inhabitants of cyberspace. The bylaws reserved almost half of the positions on ICANN's authoritative board of directors for representatives of Internet users. The bylaws gave the people of the information society the right to participate in public affairs via representatives on the board.

ICANN subsequently elaborated a right to participate. It defined election rules to fill the user positions on its board through elections in which Internet users from around the globe could vote. Anyone over age 16 who possessed an email address and a physical mailing address had a right to vote for ICANN directors. These "citizens" (whose legal status was that of an "at large members" of a California-incorporated non-profit corporation) were thus allowed to participate in its public affairs. Although non-governmental, ICANN met a standard for public participation comparable to governments of other societies. The information society had citizens, a government, and elections.

Unfortunately, citizens' right to political participation in the information society was short-lived. In 2002, in what was the US-based Carter Center called a "palace coup," the industry representatives on ICANN's board eliminated user elections and representation. ICANN's board of directors radically modified its corporate bylaws, reducing citizen participation to an advisory committee whose members were appointed by the board of directors. Citizen participation in public affairs was rendered meaningless, and industry's control of public affairs was consolidated.

ICANN offers mixed lessons. As with FOSS, we can see that public affairs in the information society occur in novel institutional settings and are deeply intertwined with technical activities. Yet norms of participation did carry over to this new setting, where they were implemented in ICANN's bylaws. Unfortunately, political dynamics of interest and power already familiar in existing societies manifested themselves in the information society, and the information society's fledgling democracy was toppled within two years of its first election. Citizen participation in public affairs largely ceased.

Conclusions

Our understanding of the right to participate depends on our conception of the information society. Conceived as the *information-rich* society, the information society is governed by the familiar institutions of national governments, in which citizens have a right to participate in the conduct of public affairs. The 1976 Covenant guarantees that right, and should states violate it then its (weak) enforcement mechanisms could be brought to bear. On the other hand, if we conceive of the information society as a distinct society with distinct, emergent governance institutions that do not conform to the established definition of "political", then the notion of citizens' right to participate is more problematic. When public affairs are conducted in non-governmental institutions, the right to participate is not guaranteed by laws binding upon governments.

Both FOSS and ICANN indicate the possibility of establishing a right to political participation in the information society. In FOSS, rights may be established through precedent and customary practice. As groups like CDT participate in software development processes, they raise awareness of the appropriateness and utility of such participation. Public awareness and established practice give substance to claims of right. Over time, participation in software development may come to be seen as right and natural and in this way it may someday win formal recognition. This is an admittedly lengthy process. Also, it is relevant only if FOSS becomes a widely used mechanism for software development. FOSS offers us the *prospect* of a right to participation. Participation could also be formalized by articulating it in rules for participation on standards bodies.

ICANN offers a clearer lesson. ICANN defined a right to participate, but that right suffered from too little legal protection. Expressed only in the bylaws of the corporation, it was eliminated by a majority vote of the board. Additional, less formal protections also failed: the national governments that oversaw ICANN in its early years could probably have used their influence to prevent the board's action. They failed to do so. Without sufficient protection, the right was eliminated, and meaningful public participation ceased. Yet the need for it did not decrease. ICANN remains in effect a global public utility and a global regulatory agency, and without user participation ICANN suffers from a legitimacy deficit.

The right to participate could be re-established in ICANN, but it would have to be in a more robust form. Were the right to be embedded in ICANN's corporate charter, it would be more robust, for charter revisions require a super-majority of the board. This would offer greater protection. A more strongly secured right to participation could be effective.

Such suggestions for securing rights in emergent governance institutions may be irrelevant, however. A different evolution of governance in the information society seems more likely. National governments are likely to chip away at the autonomy of the information society and to integrate its governance into existing institutions. The ICANN "coup" largely discredited the emergent political institutions of the information society. Following that event, movement toward ending US oversight of ICANN slowed and may have ended. Simultaneously, the UN launched its World Summit on the Information Society (WSIS), in which national governments asserted their authority over ICANN and the information society generally. As traditional political institutions increasingly take over, the traditional rights of participation that inhere in national governments will serve as the legal framework for citizen participation.

The challenge of political participation in ICANN is increasingly the same as that for other global governance organizations (e.g. the World Trade Organization). It is less a challenge of a unique information society than of a functional system that crosses national boundaries. Global governance needs legitimate political authority, and currently that seems available only through inter-governmental organizations like the UN. The right to political participation is formally guaranteed in such settings, because the national governments that are the building blocks of inter-governmental organizations recognize it. True, the right is even weaker and more attenuated here than in national governments, but nonetheless it exists. To the extent that mechanisms and rights of political participation develop, they will likely be in the traditional context of national and inter-governmental political institutions.

References

Barlow, John Perry. Undated. Cyberspace Independence Declaration. Viewed at http://www.eff.org/~barlow

Bimber, Bruce and Richard Davis. 2003. *Campaigning Online: The Internet in U.S. Elections.* Oxford University Press.

CDT (Center for Democracy and Technology). 2005. Internet Standards, Technology and Policy Project. 24 May. Viewed at www.cdt.org/standards/bulletin/2.01.shtml

Huizer, Eric. 1996. RFC 2031- IETF-ISOC Relationship. Published by the Internet Engineering Task Force. Viewed at http://www.ietf.org/rfc/rfc2031.txt?number=2031 .

Klein, Hans. 1999. Tocqueville in Cyberspace: Using the Internet for Citizen Associations. *The Information Society*, 15(4).

Klein, Hans. 2001. The Feasibility of Global Democracy: Understanding ICANN's At Large Elections. i*nfo*. 3(4): 333-345.

Klein, Hans. 2002. ICANN and Internet Governance: Leveraging Technical Coordination to Make Global Public Policy. *The Information Society*, 18(3): 193-207.

Kohno, Tadayoshi, Adam Stubblefield, Aviel D. Rubin, and Dan S. Wallach. 2004. Analysis of an Electronic Voting System. IEEE Symposium on Security and Privacy, May 9-12. Viewed at: http://avirubin.com/vote.pdf.

Lessig, Lawrence. 1999. *Code and Other Laws of Cyberspace.* Basic Books.

Litman, Jessica. 2001. *Digital Copyright*. Prometheus Books.

Nickel, James. 2003. Human Rights. In Zalta , Edward N., ed.. *The Stanford Encyclopedia of Philosophy*. Summer Edition. Viewed at http://plato.stanford.edu/archives/sum2003/entries/rights-human/ .

Rheingold, Howard. 1993. *The Virtual Community: Homesteading on the Electronic Frontier*. Addison-Wesley.

Steiner, Henry J. 1988. Political Participation as a Human Right. *Harvard Human Rights Yearbook*, 1(Spring): 77-134.

Steiner, Peter. 1993. On the Internet, Nobody Knows You Are a Dog. *The New Yorker*, 69(20): 61. 5 July.

Turkle, Sherry. 1984. *The Second Self: Computers and the Human Spirit.* Simon and Schuster.