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Unpacking the Politics of ICT4D: Modernity at the Expense of Political Liberty?

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ABSTRACT
The issue of politics in ICT4D is rarely debated on in the information systems field, yet one of the key instrumental freedoms proposed by Sen (1999) in his seminal book on development is political liberty for individuals. In addition, ICT4D initiatives are predominantly informed by a modernist philosophy, which in their effort to bring some material progress grants technological tools a predominant role, assuming that recipients are passive, and development can only be brought by those in a powerful position. This in itself is a political viewpoint, and thus politics are embedded in the design of ICT4D projects. Building on the five constitutive and instrumental freedoms introduced by Sen (1999), we discuss how far ICT4D projects are able to assist political liberty of the alleged beneficiaries, given that political liberties are constrained by wider institutional factors. We conclude by making a call for researchers to more critically examine the structure and intention of ICT4D projects.

Keywords
Sen’s capability framework, development, information and communication technology for development (ICT4D), modernity, political liberties

INTRODUCTION
The role of politics and power in the development of information systems has been debated upon from early days in the information systems field (Hirscheim and Klein, 1989, Knights and Murray, 1995, Markus, 1983, McGrath, 2002). To date, no such corresponding debate exists around information and communication technology for development (ICT4D) in the information systems field, with a few notable exceptions (Avgerou, 2008, Sahay et al., 2009, Thompson, 2005, Walsham, 2003). Escobar (2001) has long been a critic of development which takes capitalism as the overwhelming hegemony for development, often at the cost of other models and local economies. Schuurman (2003) criticizes the World Bank’s appropriation of the concept of social capital in development to support a neo-liberal agenda.

The ICT4D discourse has been roundly criticized for the hidden political and economic agendas of Western domination it embodies (Thompson, 2005) and the vested interest in highlighting the digital divide issue, which might lead to a relationship of dependency between economic interests in the developed world and the developing world (Wade, 2004). From this perspective, questioning the underlying motivations of the multimillion dollar projects aimed at targeting the billions of poor people around the world – e.g., Intel’s ClassMate laptop, AMD’s computer targeting the Indian market, VIA’s computer designed for the African market and Quanta’s XO-1 subnotebook for the One-Laptop-per-Child project (Einhorn, 2006) – becomes no less than a legitimate exercise.

Political liberties are an important part of development (Sen, 1999), and there is no doubt that information and communication technologies (ICTs) can play their part in political expression. For instance, the video of the killing of Neda Soltani, the 16-year old philosophy student, during the pro-democracy demonstrations against the re-election of Mahmoud Ahmadinejad in June 2009 was widely circulated on the Internet through YouTube and Facebook, escaping the strict control imposed on the media in Iran. It became the first serious threat to the Iranian regime in decades (Tait and Weaver, 2009). In his analysis of how marginalized groups struggle to legitimize, resist or project their own identity, Castells (2004) discovers a common denominator: the use of information and communication technology tools. He documents the role of the Internet in keeping the members of the Patriot militia in the United States connected; and gives details of the rather effective (and shocking) campaign of al-Qaeda militants in publicizing their actions and calls through the Internet.
In this paper we aim to discuss what we feel is a hitherto neglected area in the ICT4D field. Building on Sen’s (1999) capability approach, we argue that ICT4D cannot contribute to the enhancement of political liberties. Furthermore, we contend that since ICT4D initiatives are influenced by modernist philosophy, when deployed, these initiatives impose the modernist logic onto the alleged beneficiaries.

The paper proceeds as follows. First, we discuss the concept of political liberty in development. Secondly, we use Sen’s (1999) capability approach as an analytic lens in ICT4D and provide some examples. We then discuss how modernity as a basic assumption for ICT4D projects may in fact not only be preventing political liberties for the beneficiaries of those projects, but also be forcing them into an alien system in an attempt to bring about development. In the last section, we make a call for researchers to critically examine the political ecology of ICT4D projects.

**POLITICAL LIBERTIES IN DEVELOPMENT**

The idea of politics goes back to third century BC, when Aristotle described a city as a political partnership where a group of individuals live together. In the seventeenth century Hobbes concluded that this co-operation amongst individuals was the basis of a social contract required to guard against the life-threatening state of nature (Rachels and Rachels, 2007). The effective realization of this common interest of collective self-protection rests in giving the power for group decision making to a representative. In its short and purest sense, politics is about the allocation of power for decision making. It follows that political liberties are about the right of people to decide on who is going to be granted with the decision-making power and under what principles, as well as their right to freely express their views (Sen, 1999).

Sen (1999) advances the idea of human freedom as the ultimate goal and the key means of development: freedom as the “primary end” and as the “principal means” of development (p. 36). As a principal means, freedom will augment the individual’s capability to be autonomous; as a primary end, freedom will lead to the state of happiness. Overall, Sen (1999) claims, development can only be assessed “in terms of whether the freedoms that people have are enhanced” and its achievement ultimately depends “on the free agency of people” (p. 4). At the core of the idea of development is the enrichment of individual capabilities to allow individuals to be the authors of their own lives within the social groups they belong to.

The idea of capability represents the opportunity the individual has to do something. Sen (1999) proposes a set of capabilities – not an exhaustive list though – encompassing both constitutive and instrumental properties: economic facilities, social opportunities, transparency guarantees, protective security and political liberties. These capabilities have constitutive properties because each of them represents an inherent attribute of freedom; lacking any one of them will diminish the essence of freedom. This conceptualization goes beyond the narrow idea of development represented in terms of income per capita; for instance, if a wealthy person is not allowed to express her opinions without restraint, her constitutive freedoms are being seriously damaged and, consequently, her freedom as an end result of development cannot be realized. These freedoms also entail instrumental properties because they become the means to achieve development. Building upon our previous example, if the individual can enjoy an environment where free speech is encouraged but her low level of income threatens her chances of survival, the ideal of development cannot be achieved either. Hence, it follows that the instrumental properties are dependent on a strong linkage among different kinds of freedom on an equal basis; no one freedom – e.g., decent income – is more important than any other – e.g., access to health services. Individuals need all types of freedom simultaneously to live the lives they want to live and effectively realize the desired condition of ultimate happiness.

Each of these constitutive and instrumental freedoms represents vectors of functioning. If capability represents what it is possible to do, functioning is the actual realization of the individual potentiality. As Sen (1999) affirms, functionings reflect “the various things a person may value doing or being” (p. 75).Capabilities are conducive to functionings; hence, development is attained when the individual has the freedom to choose and realize the lifestyle she values. Figure 1 depicts the relationship between capabilities and functionings within the broader concept of development.
ANALYZING THE CAPABILITIES OF ICT4D INITIATIVES

If we take some well known ICT4D initiatives and analyze them according to Sen’s (1999) capabilities, we can start to see that they do not encompass the whole spectrum of development as defined by Sen (1999) in Figure 1.

Economic facilities can be described as having the opportunity to freely exchange goods and services as well as enjoy consumption. Sen (1999) highlights that the main merit of market mechanisms lies in the comprehensive outcome rather than on the culmination outcome. In other words, more than just maximizing income, recognizing the rights of people to freely transact what they produce, need or want and not be subject to an arbitrary decision-maker becomes paramount. In this respect, ICT4D initiatives aim at incorporating the marginalized individuals into the market so they can enjoy the opportunities and benefits the market offers, even though, we observe, the center of attention is more often than not on maximizing income. For instance, the e-Baro initiative in the Kelabit Highlands in Central Borneo, Malaysia, aims at improving the average family income by promoting small scale tourism in the area (United Nations, 2006); indeed, its website (www.e-baro.com) advertises accommodation facilities that are simply guest rooms in the houses of local people.

We would just add that enhancing economic facilities is the most common approach taken by ICT4D projects.

Social opportunities are decisive in influencing the individual’s prospects for a better life and typically refers to provision of education and health services (Sen, 1999). The Health Information Systems Programme – HISP (www.hisp.org) is a project initiated in South Africa in 1994, which has been extended to a number of developing countries. Its aim is to improve the healthcare systems in the southern hemisphere by means of providing accurate information to health workers. This project falls within the ICT4D category of increasing social opportunities (Braa et al., 2007).

Transparency guarantees refer to making transactions visible and represent a safeguard against corrupt practices and dishonest behavior, generally of government officials, and provide the agents with confidence in their transactions (Sen, 1999). Besides providing government services – e.g., obtaining a driver’s license and paying taxes, amongst others – the installation of the e-Seva centers (http://esevaonline.com) is aimed at eliminating, or at least reducing, corruption in the state of Andhra Pradesh in India (Prahalad, 2005).

However, not every capability proposed by Sen (1999) can be enhanced by ICT. For instance, protective security, the measures taken by the state to look after their citizens when they face ominous situations as a consequence of unemployment, is something that ICT cannot do much about. It becomes apparent that the arrangements governments can make to provide income for destitute people – typically represented by the European social welfare systems – are not within the scope of ICT4D interventions.

How the aforementioned capabilities are addressed by selected ICT4D initiatives is shown in Table 1.
Example Comment

<table>
<thead>
<tr>
<th>Economic facilities</th>
<th>The e-Bario initiative in the Kelabit Highlands in Central Borneo, Malaysia (<a href="http://www.e-barrio.com">www.e-barrio.com</a>)</th>
<th>Aim is to help local people earn income from local tourism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social opportunities</td>
<td>Health Information Systems Project in several developing countries (<a href="http://www.hisp.org">www.hisp.org</a>)</td>
<td>Aim is to provide health care workers with accurate information in order to improve the quality of service provided</td>
</tr>
<tr>
<td>Transparency guarantees</td>
<td>E-Seva centers in Andhra Pradesh, India (<a href="http://esevaonline.com">http://esevaonline.com</a>)</td>
<td>Aims to reduce corruption by eliminating minor officials who may collect bribes for government services such as paying taxes and getting drivers licenses.</td>
</tr>
</tbody>
</table>

Table 1: Examples of ICT4D initiatives addressing some of Sen’s (1999) capabilities

Before we continue our discussion on Sen’s (1999) capabilities, we need to make a distinction between e-government projects, such as the e-Seva project mentioned earlier, and political liberties. In some cases, e-government initiatives can help the fight against corruption – for instance, removing the need to go through minor officials to whom one might pay bribes – but it is difficult to claim them as vehicles for political liberties.

Political liberties – alongside protective security, the other capability not shown in Table 1 – have two dimensions, which deserve further elaboration in the context of ICT4D: expressive activity for voicing opinions and instrumental activity for making decisions (Sen, 1999). The expressive activity is related to the political sphere, where marginalized individuals are barely represented and consequently their opportunities to obtain media space to voice their views are negligible. While, by having access to the Internet, individuals can become writers and authors of their own political expressions – for instance, using blogs – as opposed to mere spectators of the mainstream media (Benkler, 2006), the public sphere of marginalized people is restricted to the discussion of local issues during the more or less frequent interaction among individuals themselves (Dahlgren, 2005). In other words, the political game occurs at the local level – be it the village or the neighborhood.

As regards the instrumental activity, we need to recognize that making technology available does not increase people’s interest in politics (Levin, 2002). In addition, providing access to ICT cannot guarantee that the excluded will be heard; the beneficiaries of ICT4D projects are, in the main, far away from the main decision centers of political authority and the decision-making power has not been transferred to them through the Internet. So far, there is no evidence that ICT4D projects have contributed in invigorating civil society. Furthermore, even assuming that having access to ICT helps both by increasing the interest of people in politics and by fostering the democratic interaction beyond the community borders, the ICT4D recipients still need “to acquire capabilities for contributing information and for making decisions about the value and provenance of information” (Mansell, 2002, p. 422). In summary, a key issue still remains unsolved: the inability of ICT4D to translate political interaction into action. The fact the ICT4D recipients are completely dependent on the means provided by the sponsors exacerbates the former’s lack of technological alternatives to create spaces for political liberties.

Nevertheless, while there is little contribution of ICT4D to the enhancement of political liberties, the mere presence of ICT4D entails political properties, and it is to this issue we turn in the next section.

THE POLITICS OF ICT4D

From our perspective, the politics of ICT4D occurs at two levels – firstly within the actual design of a specific ICT4D project, with the access to knowledge that ICT4D can provide, and secondly within a larger backdrop of the politics of development in general.

ICT4D and knowledge

To a greater or lesser extent, we would contend that ICT4D initiatives are essentially about controlling the information flow by either providing the information regarded as needed by the beneficiaries, or directing the information search to the sources considered as appropriate. Since the opportunity to produce information and the opportunity to choose technologies and procedures other than those provided by the ICT4D sponsors are restricted, ICT4D recipients are in a weak position relative
to the former. Indeed, the ICT4D sponsors act as the gatekeepers who have discretionary power over the information flow and the rules governing this information flow – cf. Barzilai-Nahon’s (2008) theory of network gatekeeping. Perhaps the only connection between the sponsors and the recipients is the former’s interest in keeping the project alive to justify their reason for existing.

In this sense, ICT4D efforts can be regarded as discourses that have consequences for the ascendancy the sponsors have over the marginalized groups they target. In the dyad power-knowledge (Foucault, 1980), power not only is supported by and makes use of knowledge but also shapes the relationship between the recipients and the sponsors, by showing the view of the world that the latter think (and want) the former need to see, by defining certain processes. Having an external agent identifying the needs and proposing the solutions for marginalized groups might constrain the self-determination of these groups and to some extent establish a relationship of domination (Moss, 2002). While ostensibly doing good, ICT4D sponsors often impose alien practices on the alleged beneficiaries. Instead of respecting the indigenous culture and fostering endogenous development, traditional values are often disregarded when the supposed beneficiaries do not have a say in what kind of development they want.

We argue that the access to computer-mediated information that ICT4D projects offer is in principle open to all as long as the beneficiaries act upon the predefined procedures, which have been designed by the central management. This centralized design gives the recipients little autonomy (Pfaffenberger, 1992); the ICT4D sponsors make all the important decisions. It makes it almost impossible for the users – the disenfranchised, who are supposed to be the main beneficiaries of the initiative – to take a path other than the one planned by the sponsors.

When the ICT4D sponsors define a set of procedures and operations, the technological tools are granted with full political force. This means that we cannot take an apolitical view of ICT4D. Although technology in general and ICT in particular embody political intentions, these can only be enacted by practices in a specific symbolic context, against which it is almost impossible to express opposition (Pfaffenberger, 1992). How technology-inscribed values alien to indigenous cultures have been enacted, or tried to be enacted, by defining certain processes is well documented in the information systems literature. For instance, the implementation in the Maldives of a customs system developed by the United Nations Conference on Trade and Development (UNCTAD) made evident neocolonial tendencies in the context of globalization (Adam and Myers, 2003). Similarly, the implementation of a geographic information systems (GIS) technology in India revealed the conflict between Western assumptions and local understandings and practices (Walsham and Sahay, 1999).

The modernity bias

The idea that humankind is slowly but steadily – *pedetemtim progredientes* – heading to a condition of ultimate happiness is a relatively recent notion that arose with the rationalistic philosophy of eighteenth-century Enlightenment (Bury, 1987). The coming of modernity, characterized by the rise of industrialism and capitalism, assumes that technical progress is the essential element for development and general wellbeing.

While ICT4D sponsors may not consciously pursue an objective of domination, what is inscribed in the technology they provide, and the processes they define, is deeply rooted in their belief system. It seems that the sponsors of ICT4D initiatives honestly believe in the power of technology to transform people’s lives for the better. Their declared objectives of bringing development through ICT implicitly favor the idea of socio-technical progress, where the supposed beneficiaries will receive the means to transform their environment in a favorable way. However, these development initiatives have inscribed the institution of surveillance (Giddens, 1990), where the ICT4D sponsors become the arbiters and controllers of the type of information to be provided and the methods of its production and distribution. The disenfranchised are trapped not only by the limits imposed by the technology provided – even if they had participated in its design – but also by the larger and broader institutional factors that constrain their opportunities. The given ICT tools bring embedded their own logic and procedures, which the alleged recipients must adhere to if they want to enjoy the promised benefits. Furthermore, both donors and recipients are immersed in the broader social context, which is not only more agreeable to the former but also makes the latter more vulnerable.

There is the risk that ICT4D initiatives attempt to reorder the social life of the beneficiaries in such a way that the provided information shapes their behavior and redefines their social relationships according to what is considered right by the donors. Hitherto, there is an indication that ICT4D projects have been focused on enhancing economic liberties, followed by social opportunities and transparency guarantees, in that order. This observation reveals that ICT4D embraces “the tacit politics of the economic marketplace” (Slove, 1995, p. 239) and fails to recognize the irreducible cultural differences existing in our polysemic world in an attempt to bring development.
The logic of the ICT4D sponsors seems to be to take the destitute out from the feudal or agricultural societies they live in by providing them with computer technology, in line with a modernist rationality. At the core of modernity is the Enlightenment philosophy, which seeks universal truths in both its scientific and its moral-political projects, and is based on the assumption that knowledge and moral principles can be applied universally (Barker, 2003). However, the assumptions of individualization, commodification and bureaucratization entrenched in the modernist rationality are not necessarily aligned with the traditional beliefs and predominant social practices of the intended beneficiaries.

An interesting case in point is given by the government plan of introducing ICT in Bhutan, a country famous for having adopted a Gross National Happiness index as a measure of development. This plan is not only intended to give Bhutanese citizens access to both markets and ideas circulating on the Internet but also, and most importantly, takes a proactive approach in being conceived as a fence against the “waves of global culture undermining one’s own identity” (Royal Government of Bhutan, 2004, p. 11). While it might be argued that this is just another attempt to control the information flow (who defines what the Bhutanese identity is becomes another legitimate question), this example serves to illustrate an indigenous ICT initiative that makes an effort in balancing local values and the predominant international – and modernist, we add – trends.

FINAL REFLECTIONS

Most of ICT4D efforts favor the economic, social and transparency elements of development. Addressing political liberties, however, goes beyond what is achievable for donors or what may not be in the interest of national governments. Providing technological tools does not guarantee that the right to freely express and decide on the principles of government will be enhanced; it depends on the existing structures of that particular society. Marginalized individuals and social groups in developing societies are not only deprived of material affluence, social services and transparent information but also, and most importantly, of political voice. So far, it must be noted that the evidence linking ICT diffusion and freedom indicators (including economic freedom, civic liberties and political rights) is still inconclusive (Baliamoune-Lutz, 2003).

It is the very complementary nature of Sen’s (1999) capabilities that make the lack of any one of them lead to social exclusion. Thus, it is important to have an integrated view of the multidimensional properties of ICT4D, since restricting any of the aforementioned capabilities will invariably result in deprivation of the other types of capability and eventually negatively affect the betterment of living opportunities (Sen, 2000). While we support the view that an understanding of the institutional context where the ICT is to be deployed is essential to reveal the real opportunities for including, as well as the risks for excluding, individuals (Zheng and Walsham, 2008), our emphasis is on the political aspects.

Our contention is not only that ICT4D cannot enhance the political liberties of recipients, but also that a merely technological intervention brings its own political assumptions, which might have counterproductive effects. In the attempt to bring the excluded into the mainstream by the introduction of technological tools, ICT4D sponsors are drawing the alleged beneficiaries toward a system of beliefs alien to them, risking the loss of cultural identity. It produces an ambivalent situation for the recipients; between the promise of better living conditions that technology can provide, and abandoning traditional values. The alleged beneficiaries are necessarily subject to the imposed technological solution, which cannot be scrutinized. Or even worse, they are just lured into a promise of development even at the cost of eroding their traditional values. To some extent, ICT4D initiatives tether the beneficiaries’ behavior so their options are restricted only to what the technological project can offer. Hence, the modernist logic of the ICT4D sponsors becomes imposed on to the recipients; as a result, both sponsors and recipients are trapped within the modernist logic.

Since the declared intention of ICT4D initiatives is to bring development opportunities to marginalized groups, this change cannot be brought by social engineering designed by influential leaders with either submissive collaboration, or no collaboration at all, with the alleged beneficiaries (Navarro, 2002). This view assumes that the development will be brought about by those in a powerful position. However, we believe true development will come only when the social actors can be emancipated and be the authors of their own lives. This requires seeing the social actors as agents rather than as passive recipients of development programs (Sen, 1999). With this in mind, we urge our fellow ICT4D researchers to more critically examine and explicitly reveal the politics of ICT4D.

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