Asymmetries of Knowledge: Mediated Ethnography and ICT for Development

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Abstract

Over the last few decades the Internet, World Wide Web, cyberspace and so forth have emerged as crucial cultural and political arenas, and thus of increasing relevance as objects and areas of ethnographic inquiry. The paper argues that the ethnographical entry-point for studying such technologically mediated arenas creates specific effects of ‘path-dependence’ and attendant asymmetries of knowledge. Globally distributed networks of organizations, collaborating on issues relating to information- and communication technologies for development (ICT4Dev) provides context for the argument. Three sources of knowledge asymmetries are identified: limited presence, partial information and uncertain connections. Although mediated ethnographies invariably create asymmetries of knowledge they also thrive on these asymmetries. This is because they also replicate features of the field itself: asymmetries of knowledge likewise characterize and influence the activities of globally distributed networks. In conjunction, the three sources of asymmetry create a predicament of mutual opacity as a condition of knowledge making in ICT4Dev networks as well as for the ethnographer. Focusing on the consequences of these asymmetries, the paper argues that mediated ethnography has central contributions to make in a) analyzing the specific formats of the social that emerges from globally distributed organizations and networks and b) bringing to light some alternative stories about what might be done with ICT4Dev.

Keywords: distributed networks, global networks, ICT4Dev, limited presence, mediated ethnography, partially existing objects, partial information, virtual ethnography, uncertain connection

Introduction

Over the last few decades the Internet, World Wide Web, cyberspace and so forth have emerged as crucial cultural and political arenas, and thus of increasing relevance as ethnographic objects and areas of inquiry (e.g. Slater and Miller, 2000). Meanwhile, globalization has provided an occasion for ethnographers to consider methodical questions, notably the question of where to locate ‘the field’, and how to engage with it (see e.g. Gupta and Ferguson, 1997; Rosaldo and Inda, 2001; Ong and Collier, 2005). Anne Beaulieu has shown how such issues are highlighted in situations where ethnography cannot approach its object ‘directly’, as it were, but is technologically ‘mediated’ (Beaulieu, 2004). These include Internet activities, such as chatting, blogging and gaming but also organizational activities involving actors co-operating at a distance, in distributed networks. Such situations make it difficult or impossible to aspire to the traditional ethnographic ideal of ‘being there’ with the informants in order to observe their activities and understand their lives.
This paper argues that mediated ethnographies always create asymmetries of knowledge but that it also thrives on these asymmetries. In the case of information and communication technology for development (ICT4Dev), discussed below, technological mediation makes it difficult to know if and how actors are related, and difficult to understand the characteristics of their relations. This is perhaps a typical scenario for mediated ethnography but it is not the only possible one. In other cases technological mediation may allow relations to be revealed that would otherwise have remained invisible. Yet in all technologically mediated settings, the ethnographical entry-point creates specific effects of ‘path-dependence’ and attendant asymmetries of ethnographic knowledge. The paper focuses on these asymmetries in order to analyze what mediated ethnography can teach about globally distributed and mediated organizational networks and practices.

The phenomenon called ICT4Dev provides the context for considering this issue analytically. ICT4Dev is a set of representations, discourses and activities carried out by global networks of organizations on the Internet and elsewhere, with the purpose of furthering the availability and use of ICT in the third world. As a project, ICT4Dev is globalized from the outset. It thus poses ethnographic questions about how to deal with settings that are not localized.

**Locations**

In a general sense the ethnographer simply cannot be present with a globally distributed community of organizations. It is possible to be physically co-located with one or several informants but, per definition, not all. In some situations it might be possible to be virtually present with many or all informants in an online environment. Yet, as has been discussed in the literature on virtual ethnography (e.g. Hine, 2000; 2005) even this scenario poses challenges for ethnographies premised on the idea of the primacy of physical co-presence (exemplified by e.g. phenomenological approaches).

In the article ‘Mediating Ethnography: Objectivity and the Making of Ethnographies of the Internet’ (Beaulieu, 2004), Anne Beaulieu suggested that the mediated environments of cyber- or Internet phenomena have been typically perceived by ethnographers as erecting barriers for research. She outlined some of the attempts that have been made to breach these barriers, and proposed that mediated studies offer a fertile ground for ethnographic exploration. Below this proposal is explored further. Rather than viewing technologically mediated settings as erecting barriers inhibiting ethnographic inquiry, it is suggested that what appears as barriers can itself be seen as symptomatic and illustrative of some particular characteristics of technologically mediated objects of inquiry. This turns the problem of mediated ethnography inside out (Riles, 2001). Rather than viewing the asymmetries generated in mediated settings as posing a special kind of problems for ethnographic inquiry, such asymmetries can be seen as replications of features of the field.

As noted, ICT4Dev is simultaneously a discourse on the uses of information technologies, a platform for networking between a diverse set of organizations and a varied set of practices taking place both in countries to be developed as well as in countries aiming to help in that process. This heterogeneity would appear to cause methodological complications because there is no readymade answer to the question of where to go to encounter the object of study; whether, for example, one should focus on the (supposedly) macro-scale activities taking place in large development organizations or whether it would be more appropriate to concentrate on the (micro-)activities conducted at the so-called local level. But whatever it is ICT4Dev is certainly a transnational and networked affair and for this reason it appears to exemplify, indeed amplify, the barriers posed by distributed mediated phenomena to traditional ethnographic methods.
This paper highlights how asymmetrical understandings of ICT4DEVEV are invariably created as the ethnographer engages with specific online configurations of organizations, people and activities. *Asymmetries of knowledge* are invariably created through these engagements because they are characterized by *limited presence, partial information and uncertain connections*.

However, the paper continues to argue that ICT4Dev does not illustrate a situation about which ethnography has little to say because of epistemological inability or methodological inadequacy. Instead it suggests that these asymmetries facilitate a specific kind of ethnographic knowledge. If ICT4Dev emerges as fluctuating and unstable phenomenon; one, which is exceedingly difficult to pin down, this is because it exemplifies a *partially existing object* emerging from multiple sites of activity that are *partly visible, partly opaque* to all involved actors, including the ethnographer.

**ICT4Dev: Aims and Contexts**

*infoDev’s* mandate is to help maximize the impact of ICTs in global efforts to achieve the internationally-supported Millennium Development Goals. *infoDev* helps donors and their developing country partners identify ways ICT can contribute to objectives such as improving access, education and health services, making public institutions more efficient and transparent, supporting rural livelihoods, and contributing to economic growth by supporting small and medium-sized enterprises that use ICT for their businesses.

Global Knowledge Partnership (GKP) is the world's first multi-stakeholder network promoting innovation and advancement in Knowledge and Information and Communication Technologies (ICT) for Development. GKP brings together Public Sector, Private Sector and Civil Society organisations with the goal of Sharing Knowledge and Building Partnerships in Knowledge and ICT for Development. GKP activities and programmes foster the innovative application of knowledge and technology to address and solve development issues in four strategic themes - Access to Knowledge, Education, Poverty Reduction and Resource Mobilisation.

ICT4Dev is one of the multiple acronyms flooding web-pages relating to aid development and the Internet. Literally it stands for information and communication technologies for development. As the above quotations from two major organizations/networks, *infoDev* and Global Knowledge Partnership, shows ICT4Dev refers to the use of information and communication technologies in order to improve social or economical conditions and alleviate poverty in developing countries. This can be done in numerous ways: from making accessible cheap computers through open software, to supporting the use of computers in education, implementing early warning systems against natural catastrophes, creating online microloan sites, constructing free wireless networks in urban settings and so on.

According to its own ideals, ICT4Dev has no home country as such, or any privileged site of application. It is rather an umbrella term for worldwide efforts to globalize the information revolution. Thus ICT4Dev supporters are particularly committed to bridging the digital divide, understood as a technological chasm separating North-Atlantic and some East-Asian countries from e.g. African and South-American countries. Within the networks of aid development this strategy is often based on a metaphor of technological leapfrogging. The idea is that technological powers can be harnessed to ‘jump’ stages of development, thus catching up quicker with modern nations. The contrast is with traditional stage-based development thinking (pace Rostow 1960), the metaphor of which is one of gradual evolution, from the basis (e.g. agriculture) towards industry and services.
Both at the level of large development organizations and agencies (Asia Pacific Development Information Programme, UN, World Bank) and within research communities (in e.g. East Asia, Europe and the U.S.) there is increasing interest in ICT4Dev. This interest materializes, for example, in workshops, conferences, publications and, not least, in web-pages, that represent aims and activities and facilitate communication between dispersed networks of organizations and practitioners.

The Global Knowledge Partnership (GKP) is a prominent example of one such networked organization. The Global Knowledge Partnership presents itself as ‘the leading international multistakeholder network committed to harnessing the potential of information and communication technologies (ICT) for sustainable and equitable development’. The partnership has over 100 member organizations comprising civil society, development banks, ministries and corporations. Additionally it has numerous ‘partners’, ‘advisors’ and ‘friends’. Adopting the discourse of networked democracy, GKP stresses inclusiveness, noting that its members involve everyone from grassroots practitioners to policy-makers. It is emphasized that the aims of the network are dynamic even as they remain grounded in practice: GKP members are ‘innovators in the practical use of ICT for development’, working to ‘unleash the potential of ICT to improve lives, reduce poverty and empower people’. Thus the GKP webpage explains that:

While fostering meaningful exchanges and learning, GKP also provides the platform for building effective multi-stakeholder partnerships (MSPs) to generate innovative and practical solutions to development problems, and creates opportunities for scaling up ICT initiatives and spreading their benefits.4

This involves organizing knowledge sharing events, facilitating investments, promoting innovation of ICT in development and influencing policy and public opinion. Featuring members such as Microsoft Corporation, the World Bank, FAO, the International Telecommunications Union (ITU) and the Islamic Development Bank, the GKP has tapped into a rich vein, metaphorically and economically speaking, by promoting the leapfrogging of development by means of ICT4Dev. Networks such as GKP currently organize activities all over the world in order to promote this agenda. ICT4Dev, in a sense, is this global agenda.

Localizing Global Networks

If one wants to study ICT4Dev ethnographically, this raises the question of how to approach a site that is per definition globally networked. The usual solution is to move from the global to local context. However, this is a tricky strategy, since key aspects of ICT4Dev relate to its global and distributed characteristics. In consequence, any specific selection of a site opens up for queries about the criteria for focusing on just this context out of the globally distributed cohort. Indeed, ethnographic localization in a sense means decontextualization in a situation where a key feature of the phenomenon is precisely its distributed globality.

Of course, the presumed benefit of focusing on a particular site is that it becomes possible to know this particular context– its discourse, actors, organizations, or activities, systematically and coherently. But is this possible? The following section offers a brief illustration of some challenges attending the localization of ICT4Dev. It takes us briefly to the high-profile policy setting of the second World Summit on the Information Society (WSIS), held in Tunis 2005, in order to seek solutions to bridge the digital divide. The WSIS meeting, however, opens up a practically endless set of connections. Tracing one such connection, the next section attempts to localize and specify the WSIS ICT4Dev agenda in a Danish aid context. But through this very effort to localize, the globally mediated settings creep back in. Perhaps the implication is that contextualizing
by localizing is not a feasible strategy in the case of ICT4Dev. We are thus eventually returned to mediated ethnography and its challenges.

**Localizing ICT4Dev from Tunis to Denmark (via the U.N.)**

The WSIS meeting held in Tunis comprised academic as well as policy discussions and forums, but high-level policy was central. This was a situation in which GKP’s ambition to ‘unleash the potential of ICT to improve lives, reduce poverty and empower people’ was widely shared. Critical discourse analysts would have a field day here, as grand visions circulated freely among politicians, corporate entrepreneurs and researchers. But what followed from these discussions, in terms of the ICT4Dev agenda? Of course, this depends on specific contexts. Yet, given its heterogeneity and expansiveness, the WSIS enables one to connect to too many places, organizations and countries.

One of the multiple activities following-up on WSIS was a UN-meeting simply entitled ‘Where to go from Tunis’. At this meeting the liberal Danish Minister of Foreign Affairs Ulla Tørnæs highlighted ‘the link between the WSIS process and the fulfillment of the Millennium Development Goals’ which aims to halve poverty, prevent the spread of AIDS and achieve universal primary education by 2015.\(^5\) ‘In my eyes,’ she stated, ‘that sends an important signal on the significance of information technology for development’.\(^6\) In a rather stunning formulation (because it projects as an unacceptable future what is already concrete reality) the Danish Minister argues that: ‘we cannot accept if the African continent falls behind in the information society we all live in. We cannot accept if a large African population is excluded from all the benefits we are all enjoying in our rich part of the world’. Perhaps at the discursive level we cannot. Yet, this leads to the question of how the process of lifting Africa into the information age is to be accomplished by means of IT; how the ICT4Dev agenda is to be concretized in Danish aid practice.

In the Danish minister’s version: ‘the utilization of new technologies is not a goal in itself. The goal is to combat poverty. Information technology acts as a catalyst for growth and development’. IT has therefore to become a central component in development work across the board: it has to be mainstreamed. Now, mainstreaming can mean any number of things depending on countries and organizations. Yet, we can follow the trail laid out by the minister’s vision, by considering the meaning of ICT mainstreaming for poverty alleviation in the specific context of Danish development aid.

According to a working paper entitled ‘Information and communication technology in Danish development assistance, ‘ published in May 2000 by the Ministry of Foreign Affairs’, if one is to understand ICT in development ‘it is necessary to distinguish between two types of activities: ICT activities that aim to strengthen technical, political and institutional capacity in developing countries and development initiatives that utilize ICT to enhance the effect of sector specific development objectives – e.g. ‘education for all’ (section 3.1.). Of these ‘the latter category accounts for an overwhelming majority of the Danish development activities involving ICT’. Unfortunately, the activities within this category are also the most challenging in that they require ‘mainstreaming of ICT to the aid context’. For that reason, it is explained, ‘the Danish aid programme does not include an explicit ICT policy, but over the years the use of ICT tools has gradually increased and become an integral part of the planning and implementation of numerous funded aid activities’.

According to the vision outlined in the report, mainstreaming is a labor-intensive process, which must be thought of a long-term and step-by-step. The work ‘comprises a multitude of technical, theoretical, social and economic aspects and can be approached from various angles: technicalities of ICT, cultural differences in communication, definitions of knowledge and information or economic analyses of the telecommunications
sector in developing countries’ (section 2.1). Social development covering education and distance learning will have to be included. A health agenda enabling everybody to ‘gain access to medical information’ is also highlighted. Business development that has to do with making opportunities for companies in developing countries to take advantage of ICT’s is likewise an important component. As well, access of information is ‘at the core of good governance and democratization’ since ICT has the potential to reduce corruption, power abuse and the suppression of human rights. Finally, in the case of humanitarian aid, databases can carry information on ‘available relief supplies’ as well as provide early warning systems on ‘pre-conflict zones’. In combination these diverse ways of making use of ICT in developing countries make up the attempt of the working paper to imagine ways in which Danish development can make use of the ‘unprecedented chance’ for developing countries to ‘leapfrog’ earlier stages of development.

This section began with an effort to localize ICT4Dev in order to render it amenable to a localized and unmediated ethnography. It turned briefly to the WSIS meeting in Tunis, generally considered a milestone in terms of getting ICT4Dev on the broader development policy agenda. To further specify ICT4Dev implications it then traced the agenda to a U.N. meeting and finally to a local Danish policy consideration about the challenges and opportunities of mainstreaming ICT in development. Yet this discussion broadened to include innumerable uses of ICT in developing countries worldwide (from business development to warning systems and medical information).

Now obviously, an endless set of other ways to trace the contours of ICT4Dev could have been chosen. But the analytical point is that the attempt to contextualize ICT4Dev by gradually localizing it, even to the quite specific level of Danish policy, eventually reversed, since specific documents seem just as global in scope and implication as the diffuse and distributed starting point that led to the effort of localization in the first place. But where then is ICT4Dev?

Where is ICT4Dev?

The section above traced a few translations between the WSIS meeting and Danish ICT4Dev policy. Its purpose was to provide a general sense of why approaching ICT4Dev ethnographically is a complicated task. ICT4Dev is clearly found as a set of practices and motivations in numerous organizations, research institutions, conferences and discussion from GKP and infoDev to the WSIS conference, U.N. or to the Danish Ministry of Foreign Affairs. But when one attempts to cut down the phenomenon to ethnographic size, by zooming in on particulars, complexity does not diminish. Rather than using specific contexts to solve the problem of location, it might be argued that zooming in on Danish development raised the question of location in another key. Danish translations of ICT4Dev, too, covers a rich set of activities and ideas, and spans multiple levels, from mainstreaming of ICT use in a business context to implementation of the Millennium Goals.

Where then is ICT4Dev found? To answer this question it is necessary to consider three problems integral to mediated ethnography. First, each specific site to which one might turn, instantiates a problem of limited presence, as different and possibly more consequential activities are bound to appear elsewhere (thus one can always ask questions such as: why turn to GKP rather than infoDev? why trace a path from WSIS to Danish development aid rather than to e.g. World Bank initiatives?). Second, these are situations that enable the researcher to get only partial information from a subset of relevant actors. Finally, each site poses a problem of uncertain connections, since in globally distributed networks it is difficult or impossible to trace precisely what is linked with what and how (for example, it is difficult or impossible to trace exactly how the speech of the Danish minister relates to the millennium goals, on the one hand, and to actual activities with
mainstreaming ICT in Danish aid, on the other). In combination these three problems create asymmetries of knowledge that cannot be circumvented by mediated ethnography. Rather, they are among its defining features.

Anne Beaulieu has posed the question whether ‘technology is assigned any role in constituting th[e] position’ of the ethnographer, and whether this role would be pre-determined by the setting (context, phenomenon itself) (Beaulieu, 2004: 145). In the case of ICT4Dev the answer is that technologies obviously do play a role in constituting the ethnographer and in creating specific asymmetries in his or her account. In a situation where ICT4Dev is found in ‘too many places’, any understanding of its characteristics will be shaped by the specific entry point, through which one engages the object. Beaulieu’s question whether the ethnographer’s knowledge creating capacity ‘is predetermined by the setting, to some extent’ (145) can be answered affirmatively.

To illustrate again with the Global Knowledge Partnership, clearly its webpage provides a point of entry, offering information, stories and links to member organizations. But it is obvious that even if one accepts GKP as an important actor in the area of ICT4Dev its framing of the phenomenon is only one among many. As other actors and organizations, GKP engages in competitive attempts to frame important issues concerning the use of technologies in the developing world. These are issues that have multiple possible answers that engage people across the world in very different ways. In such situations organizational efforts to elucidate what ICT4Dev is all about are not simply constative (as in providing authoritative definition). They are performative, in the sense that these sites and networks are actively engaged in constituting ICT4Dev in particular ways (Austin, 1975; Jensen, 2004). In the simple act of entering the ICT4Dev network through the GKP portal specific knowledge asymmetries are already instantiated because of the relations this portal highlights and hides. In this sense, technological mediation amplifies the ethnographic problem of defining the field. Simultaneously, however, technological mediation exacerbates problems in understanding what modes of social organization are created through ICT4Dev.

In her contribution to Virtual Methods, Beaulieu identified as central the question of where ‘sociality [is] to be explored?’ (Beaulieu, 2005: 185). Asking this question raises the issue of who are the actors that engage in the new social formats that ICT4Dev networks hope to produce. If it was possible to trace in detail all aspects and activities of GKP or infoDev (but it is not, as the ethnographer faces the problem of limited presence) one would presumably encounter multiple divergent versions of ICT4Dev. This is not only a question of online representation and performance. For as much as ICT4Dev is talked about online, it is meant to be carried out elsewhere, offline. As GKP insists, ICT4Dev is precisely not to be viewed as ‘just’ a web-entity, but as a set of activities with consequences for ‘real lives’. Online, however, one can learn very little about the concrete initiatives, through which the benefits of ICT4Dev come about. Instead the aesthetics of NGO web presence (Riles, 2001) stress simplicity and visions, recommendations for best practices and guidelines. By approaching the social in ICT4Dev, mediated, one is taught more about forms of organizational performativity and self-presentation than about concrete project realities.

Online, one finds numerous stories of successful technological implementation. GKP, for example, has a special section on testimonials, evoking the promise and possibility of new ICTs. However, one is quite unlikely to encounter anything resembling ‘thick description’, of actual projects, their dynamics of funding, political settings, cultural and gender-related challenges, not to mention corruption, elite capture, and other standard problems of development. Unless one accepts web-based presentations as adequately representing the projects it talks about, it must be assumed that there are crucial ‘absent presences’ on the ICT4Dev portals.
For this reason, one might be tempted to critically compare the way in which ICT4Dev is represented online with the lived practices of people struggling to work with (or simply access) new technologies. However, a performative approach suggests another venue of analytical exploration for mediated ethnography. As argued above, the stories, frames, links and explanations are not only representational devices but also active players in performing specific versions of ICT4Dev. Mediated ethnography enables one to take seriously how the forms through which phenomena such as ICT4DEV are performed and re-performed through stories, links and descriptions from multiple actors in ways that know no clearcut distinction between the online and the offline, the virtual and the real. In the case of ICT4Dev, the social and the technological emerges out of the other in particular mediated form.

The Sociality of ICT4Dev and the Politics of Hyper-linking

If sociality can be explored online, this still says little about what forms it might take. What does the social, mediated, look like? How are social fields defined and delimited through technical agency? Anne Beaulieu has argued that such questions can be related to the politics of hyper-linking. She proposes that hyperlinks can be viewed as both functional and symbolic (2005: 183). They are functional, in the sense that they lead on to other links on the web. Yet, these links also symbolize: they indicate agreement and affiliation with the stances and causes of actions represented on linked-to sites. Such linkage provides a non-human means of what Bruno Latour calls ‘bringing in friends’ (Latour, 2005) in turn, corroborating Michael Taussig’s claim that iconography -- the symbolic meanings of subjects and signs used to convey ideas important to particular cultures and their governing conventions – offers a view of ‘popular historiography’ (Taussig, 1980: 186). The sociality of ICT4Dev is configured through such processes.

Ethnographic and historical lessons might be drawn from the symbolic study of hyper links. But, of course, the pictures painted by such studies, too, are partial. Through them emerge a version of ICT4Dev precisely as performed by GKP and its friends. This material offers plenty of opportunity for analyzing popular ideas about ICT and identifying their built-in assumption about technology and politics. Yet, these constructions are made by and also primarily directed at a highly select set of actors, located predominantly in wealthy and prominent organizations.

Still, as has been argued, these organizations have no monopoly on deciding what kind of entity ICT4Dev is. Further, they are incapable of determining how other actors may want to depict it, work with it or oppose it. Even if ICTs are accepted as useful for developing communities and countries it may well be that their usefulness is enacted dramatically different ways as soon as one leaves the friendly sphere of GKP links. While it is quite likely that the icons, symbols, and narratives invoked in relation to ICT4Dev represent a Western development point of view, it must also be taken into account that most of the supposed benefactors of ICT4Dev have no net presence. This raises the crucial question but partly unanswerable question ‘who are the actors of ICT4Dev’?

Who Are the Actors of ICT4Dev?

According to UNDP (United Nations Development Programme), ICT4Dev is about crafting ‘comprehensive regional and country strategies and implementation plans to help transform the digital divide into a digital opportunity’. Indeed, one of the main capacities of ICT is supposed to be the generation of new informational futures for poor peoples around the world. But who are then the relevant actors? Asking this question one encounters a curious ambiguity. On the one hand, the relevant actors are clearly those masses of people who
are supposedly technologically deprived and needs help (and must help themselves) bridge the digital divide. These people are incessantly talked about online, although only momentarily given individual faces in success stories about ICT4Dev. Yet, precisely because of their present conditions they are not the ones doing most of the talking. This is done, rather, by organizations and governments involved in ICT4Dev initiatives. It may be that ‘they cannot represent themselves, they must be represented’, as the classical Marxian formulation went (Marx, 1963). But in the case of ICT4Dev the reason for this is seen to be precisely their lack of access to information technologies. The problem is thus one of bootstrapping. The situation is one in which multiple organizations, consultants, policy-makers, entrepreneurs and so on, act through ICT with the purpose of enabling as yet un-included people to act through ICT later on.

What this implies is that, on the one hand, there is no way to understand ICT4Dev except by way of the Internet, both because ICT4Dev is about getting people online (one way or another) and because the relevant organizations (GKP, the Danish Ministry of Foreign Affairs, and so on) establish extensive ‘web-spheres’ in order to perform this idea (Schneider and Foot, 2005). Yet, on the other hand it is impossible to understand ICT4Dev by staying online.

In the introduction to Virtual Ethnography Christine Hine wondered whether: ‘the virtual’ is experienced as radically different from and separate from ‘the real’, and if there is a boundary between online and offline’ (Hine, 2000:8). Hine reached the conclusion that ‘abandoning the offline/online boundary as a principled barrier to the analysis allows for it to be traversed (or created and sustained) through the ways in which connections are assembled’ (Hine, 2000: 62). Yet, virtual ethnographers have mostly followed specific actors online and offline in order to understand how real life contexts influence ‘the ways in which the technology is experienced in use’ (Hine, 2000: 4). This presupposes that the relevant actors, in fact, experience information technology in use.

However, in the case of ICT4Dev they do not, or not necessarily, since ICT4Dev is precisely defined by the ambition to get online more people who are presently unable to experience and use ICT. And because this is the project of ICT4Dev the possibly forthcoming experiences of those future users will be shaped, in part, by what is going on today, virtually, in organizations such as GKP. Thus ICT4Dev networks are currently engaged in building technological ‘trails’ (Cussins, 2002: 17) for others to follow.

What is interesting about these efforts is that the situation of the actors involved in building the trails on which ICT4Dev is meant to travel, mirrors the situation of the ethnographer attempting to study ICT4Dev. Just as virtual ethnographers experience difficulties in determining who are the actors, what they might be doing, and why, so also ICT4Dev practitioners and organizations struggle with this issue. Indeed, the multiple testimonials, workshops, collaborations and projects which are presented at ICT4Dev websites can be seen as attempts to grapple with problems relating to limited presence, partial information and uncertain connections using all available technological and organizational means.

For ICT4Dev practitioners, limited presence points to the problem that each member organization is only selectively engaged in the networks and has no global, overall knowledge of those networks and their activities. Partial information both about other parts of ICT4Dev networks and about the crucial but elusive end-users follows inevitably. The result is an overall sense of uncertain connections. In conjunction, these problems create asymmetries of knowledge among the ICT4Dev practitioners, which leads to ongoing reflexive organizational efforts and networked activities aiming to find out both who are the involved actors (online and offline), and how one might engage them. ICT4Dev websites and portals simultaneously illustrate and respond to such asymmetries of knowledge (however limited we might view the inventiveness of the responses).
What follows from this is that approaches which might evaluate the form of ICT4Dev net-presence by holding them up against lived realities misses the point, at least to an extent. Although ICT4Dev, as it appears from the web-pages of global networks, may be out of sync with reality among many of the people it aims to support, the problem is not that ICT4Dev authors are unaware of the discrepancy between their representations and the real world. It is rather that actual practices, including those comprising ICT4Dev organizations, are distributed and heterogeneous to an extent that renders adequate overview an impossible dream for everyone involved. Consequently, the stories, hyperlinks and so on found on e.g. the GKP webpage can be viewed as attempts to grapple with this issue rather than to evade it. The social forms and relations that emerge from ICT4Dev presentations carve out fields and areas of intervention in an otherwise too complex world. They specify (techno-)social relations. They define trails of actions to which ICT4Dev practices try to respond.

This analysis suggests that the rendering of as yet un-included and invisible users as recipients rather than actors is a function of asymmetries of knowledge that actors in such networks lives with and tries to handle (just as the ethnographer does). In that case the task of mediated ethnography might be a double one. On the one hand it consists in analyzing specific formats of the social that emerges from these contexts of distributed uncertainty. On the other hand it might bring to light how ‘aberrant readings are always possible from inadequately configured users’ (Hine, 2000: 34) of which there are plenty in the case of ICT4Dev. As Beaulieu suggests, it might explore ‘alternative modes of intersubjectivity that can be enacted in Internet contexts’ (Beaulieu, 2004: 153). Except that interobjectivity (Latour, 1996), invariably partial and mediated, might be a more adequate term in these situations.

ICT for Whom?

Compared with these issues, the question of ICT for whom should in principle be easier to answer. It might be taken directly from mission statements on the webpages of GKP, infoDev, Danida, or UNDP. It has already been noted that ICT is to be used for telemedicine, education, warning systems and relief assistance, e-governance and business. These aims are so broad as to potentially include practically everyone in any developing country. This sense of ubiquitous possibility helps to construct ICT4Dev as a future-generating device, since there is always more to do, for someone, somewhere. Yet, it is striking that this emphasis on the ‘local’ uses of ICT for various purposes is very often paralleled by an almost equally strong emphasis on the IT-use of the supporting organizations themselves. The Danish development agency, for example, noted that: ‘over the years the use of ICT tools has gradually increased and become an integral part of the planning and implementation of numerous funded aid activities’. Likewise, NGO’s carry on discussions about how to transform into ‘knowledge organizations’ by means of ICT (e.g. Jensen, forthcoming; King and McGrath, 2004; Mehta, 1999).

This illustrates the peculiar recursive qualities of ICT4Dev, which sees strongly web-present and resource strong communities arguing intensively for the necessity of facilitating third world user access to those same technologies. A number of levels, which social science analysis usually holds separate are here crossed. Instead a fractal landscape (Jensen, 2007) is encountered in which what is talked about (enabling access to new technologies), mirrors the reason for talking about it (the expansion social and especially economic networks by enabling technical access), again mirroring the mediated way in which it is talked about (that is, on the Internet): networks formed to discuss networks aiming to get people into networks, all of which takes place on the net. Indeed, GKP describes itself as a ‘network of networks’. What to think about this situation?
It is possible, even easy, to analyze critically, in terms of conflation. By viewing everything in terms of networks, development organizations can easily slip from talking about IT needs of the poor to the IT needs of themselves. It is tempting to argue, that this is another illustration of how subaltern actors and communities, unable to gain voice, ‘are becoming increasingly integrated into the juggernaut of capitalist trade and labor relationships’ (Taussig, 1980: 183). The only news in this story would be that this time around subjugation is carried out by way of networking on the Internet.

But if networks are ‘ontologically heterogeneous’ (Cussins, 2002: 18) and actors capable of performing different versions of ICT4Dev, it might also be the case that openings for other, half-hidden futures could emerge from such initiatives. Hine has argued, that those who have access to the Internet do not ‘automatically know what to do with it’ (Hine, 2000: 29). Additionally, those who do not have access (the benefactors of ICT4Dev) might have entirely different ideas about what could be done with it. Such ideas, however, often remain mutually opaque to actors engaged in or implied by ICT4Dev, since all live with limited presence, have to handle problems relating to partial information and other parts of the network and need to sort their uncertain connections on that basis. By attending to what might be called an ontological predicament of mutual opacity as a condition of knowledge making in distributed and virtual environment such as ICT4Dev, mediated ethnography could participate in the articulation of some new stories about what might be done with the Internet, or even how to get on to it in the first place.

### ICT4Dev as a Partially Existing Object

This paper has proposed to turn the question of the problems that mediation may create for ethnographic inquiry inside out, by showing how limited presence, partial information and uncertain connections are experienced also by the actors involved in ICT4Dev activities on- and offline. Ethnography, mediated, inevitably creates an asymmetrical object of knowledge; part light and part shadow. The ethnographer necessarily attempts to define a field of inquiry, but any specific site replicates problems pertaining to defining the modes of (techno-)sociality, the involved actors and their connections through on- and offline trails to many places elsewhere.

The problem is mirrored by ICT4Dev. The difference is that whereas the ethnographer struggle to create an object of knowledge out of the opaque connections that make up the global network of ICT4Dev actors, those actors struggle to create spaces and relations through which information and communication technologies connect with other actors. In both cases, and for similar reasons, the effects result from actions taken on the basis of too little, too asymmetrical knowledge. The uncertainties of the ethnographer and the field replicate one another although they engage in very different practices with very different motivations. This is why a mediated ethnography attentive to the pervasive ontological opacity of ICT4Dev has unique opportunities for understanding how and why this phenomenon come into being as a perpetually unstable, fragile, indeed, only partially existing object.

It is worth noting that the approach to mediated ethnography here advocated involves a significant shift in perspective in comparison both with those who promote ICT4Dev and those who criticize it. The critical problem is not, primarily, that networks of Western organizations impose on people elsewhere their agendas (Alzouma, 2005; Mehta, 1999; Ya’u, 2005). The point is rather that in spite of the rampant technological determinist imagination infusing much ICT4Dev, in spite of organizational determination and available funds, and in spite of the countless initiatives taken, those networks suffer a lack of capacity to carry out those agendas. The problem is that the globally distributed networks they inhabit are too large and complex to know and act effectively in.
This situation can have problematic consequences; among which one is that the utter lack of overview and ability to connect, encourages ICT4Dev organizations such as GKP to concentrate on visions and success stories and different variants of best practice and one-size-fits-all thinking. But these strategies do not result from the extraordinary powers of these networks, and their indifference to lived reality. Rather they are attempts to deal with the fragility of its efforts and helplessness in effectuating agendas.

Yet, irrespective of whether one is interested in supporting these agendas or not, it would appear that mediated ethnography has an important job in this situation. Given that asymmetries of knowledge is a condition for all actors of ICT4Dev, a mediated ethnography has the opportunity to explore how the mutual opacity generated by asymmetries brings along entirely different effects for different actors: in ICT4Dev organizations and on their outside among the people whom these organizations aim to help. Understanding these processes is crucial for understanding how ICT4Dev and other globally networked efforts lingers on as fragile, partially existing objects, much talked about, only sometimes brought into being. Developing such understandings could be an important ethnographic intervention, both in the case of ICT4Dev and in the case of other part actual, part virtual, somewhat global, somewhat local technologically mediated phenomena.

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1 As when web-searches allows the identification of people or organizations behind ‘sites’ that are presented anonymously (the example is Anne Beaulieu’s).
2 [http://www.infodev.org/en/Page.About.html](http://www.infodev.org/en/Page.About.html) (Accessed 19/11-09).
3 [http://www.globalknowledgepartnership.org/gkp/index.cfm/pageid/210/Home/Who-We-Are/](http://www.globalknowledgepartnership.org/gkp/index.cfm/pageid/210/Home/Who-We-Are/) (Accessed 19/11-09).
4 [http://www.developmentpartnership.org/dpi/links.html](http://www.developmentpartnership.org/dpi/links.html) (visited 21/9-06).
5 [http://www.un.org/millenniumgoals/](http://www.un.org/millenniumgoals/) (visited 18/9-06).
6 [http://www.um.dk/da/menu/Udviklingspolitik/Udviklingsministeren/Taler/UdviklingsministerensTalePaaKonferencenWhereToGoFromTunis.htm](http://www.um.dk/da/menu/Udviklingspolitik/Udviklingsministeren/Taler/UdviklingsministerensTalePaaKonferencenWhereToGoFromTunis.htm) (visited 18/9-06).
7 [http://www.um.dk/danida/partnerskab2000/arbeidspapirer/Papir15.rtf](http://www.um.dk/danida/partnerskab2000/arbeidspapirer/Papir15.rtf) (visited 18/9-06, no longer accessible).
8 [http://www.globalknowledgepartnership.org/gkp/index.cfm/pageid/452](http://www.globalknowledgepartnership.org/gkp/index.cfm/pageid/452) (accessed 31/11-09).
9 [http://www.undp.org/rba/ICT4Devev.html](http://www.undp.org/rba/ICT4Devev.html) (visited 18/9-06).
10 See Jensen (2005) for a discussion of the term ‘future generating device’. 
Biography

Casper Bruun Jensen has published widely on theory and method in science and technology studies. Recent work includes *Deleuzian Intersections: Science, Technology, Anthropology* (with Kjetil Rødje, 2009) and a monograph entitled *Ontologies for Developing Things: Making Health Care Futures Through Technology* (2010). Casper is associate professor at the IT University of Copenhagen.