INFORMATION AND COMMUNICATION TECHNOLOGY AND THE SOCIAL INCLUSION OF REFUGEES[1]

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The social inclusion of newly resettled refugees is a significant issue confronting both refugees and their host societies. Information and communication technologies (ICTs) are increasingly viewed as a useful resource in programs that provide settlement services or promote participation in society. This paper moves beyond the conventional discussion on the digital divide to explore what people are actually able to do and achieve with ICTs. We draw on an analysis of the use of ICTs for particular purposes by more than 50 resettled refugees to develop an explanation of the process by which ICT use contributes to their social inclusion. We propose that ICT constitutes a resource from which a set of five valuable capabilities is derived: to participate in an information society, to communicate effectively, to understand a new society, to be socially connected, and to express a cultural identity. In realizing these capabilities through ICT use, refugees exercise their agency and enhance their well-being in ways that assist them to function effectively in a new society and regain control over their disrupted lives.

Keywords: Information and communication technology; social inclusion; refugees; capability approach; well-being; agency

Introduction

Worldwide, millions of people are forced to leave their home countries because of international hostility, civil war, violence, and persecution. This is an ethical issue of formidable proportions that the international community cannot simply ignore. Host countries—usually the industrialized nations of the world—assume the responsibility to protect refugees and guarantee their human rights, while refugees face the challenge of building new lives in countries typically not of their choosing. This situation often engenders the risk of resettled refugees being excluded from full participation in society.

This risk has encouraged many governments to introduce programs that provide settlement services and measures to promote the social inclusion of this marginalized group of people. Given the increasing pervasiveness of information and communication technologies (ICTs) in everyday life, particularly in the developed world, ICTs are often viewed as a significant tool in such programs. In this paper, we move beyond treating inclusion as simply providing access to the tool, to considering the process by which particular uses of ICT actually promote social inclusion in specific contexts. Thus, our research question is: *How does ICT use by resettled refugees contribute to their social inclusion?*

We use a multidimensional understanding of social inclusion that encompasses the right of persons to the capabilities that they value in constructing meaningful lives (Sen 1999). This approach recognizes the agency of individuals in deciding on courses of action for their betterment within the constraints of existing social arrangements. Our empirical study focuses on a group of individuals who entered New Zealand as refugees and were given computer training, a refurbished desktop com-

puter, and access to the Internet. We are not so much concerned with their access to this ICT as with understanding how their use of it facilitates opportunities for their participation in social, cultural, political, and economic life.

The remainder of the paper is organized in five sections. First, we provide a theoretical discussion of social inclusion, ICT, and refugees, and introduce Sen's (1999) capability approach, which informs the analysis of our participants' use of ICT. We then present the research methods that we used to collect and analyze our data. The subsequent section outlines the findings of our empirical study, and this is followed by a discussion of how ICT use contributes to the social inclusion of resettled refugees. We conclude the paper by highlighting the contributions of our research for theory and practice.

Theoretical Background ▉

Social Inclusion

Social inclusion can be defined as "the extent that individuals…are able to fully participate in society and control their own destinies" (Warschauer 2003, p. 8). The concept is based upon that of social exclusion, which was developed to describe the ways in which people "might be prevented from fully participating in the societies in which they were living" (Wilding 2009, p. 161). While social exclusion has been studied in terms of socioeconomic variables such as poverty, increasingly it is understood as a multidimensional, relational, and dynamic process (Selwyn 2002; Taket et al. 2009). Although clearly related to social exclusion, social inclusion is not simply non-exclusion (Ratcliffe 2000). Combating social exclusion is about mitigating disadvantages, while promoting social inclusion involves proactively creating opportunities (Phipps 2000).

While the focus of much governmental discourse on social inclusion is on its economic dimension (e.g., being productively engaged in work, training, or care), this is at the expense of other dimensions of inclusion, such as civic and political participation, cultural identity, and social interaction and interpersonal networks (Phipps 2000; Selwyn 2002). A focus on social relations rather than resource distribution emphasizes issues of participation and empowerment (Phipps 2000). As Stewart (2009) argues: "Inclusion is a matter not only of an adequate share in resources but equally of participation in the determination of both individual and collective life chances" (p. 9). Viewing social inclusion as a dynamic process implies analyzing the mechanisms that act to promote inclusivity in a society (Selwyn 2002).

A focus on individual agency and empowerment emphasizes that social inclusion is something done *by* people rather than *to* them (Taket et al. 2009). In other words, social inclusion is more about self-determination than assimilation into dominant or mainstream norms and values (Maidment and Macfarlane 2009). If social inclusion means fitting in with the dominant identity and preexisting parameters of society, then social inclusion begins to seem very like assimilation (Ratcliffe 2000; Tascón 2008).

Beyond the Digital Divide

Increasingly, the notion of an information society is converging with that of an inclusive society, so that access to and use of ICTs are being seen as the basis for social inclusion (Selwyn 2002). Various ICT-related capabilities and literacies enable participation in a global information society or digital inclusion (Mansell 2002; Notley 2009). Of course, ICTs may also exacerbate existing forms of social exclusion or even create a new type of digital exclusion (Phipps 2000; Selwyn 2002) from participation in, for example, networks of information (Beck et al. 2004) or the network society (Castells 2001).

However, the pervasiveness of ICTs in an information society does not automatically promote social inclusion. Access to ICTs does not guarantee engagement with these technologies and neither can we assume that increased use of ICTs necessarily means that people feel more socially included (Panagakos and Horst 2006). Social inclusion involves a shift in emphasis from overcoming traditional digital divides, whether access to ICTs, computer literacy, or information "haves" and "have-nots," to what people are actually able to do and achieve with ICTs (Mansell 2002; Warschauer 2003; Zheng and Walsham 2008). The focus is on how, through using ICT "in a self-determined manner" (Castells 2001, p. 277), individuals are able to participate in society (Mansell 2002; Notley 2009).

From an economic perspective on social inclusion, ICTs are vehicles for promoting participation in productive activity, such as employment (Selwyn 2002). From other perspectives, particularly political engagement and cultural and social participation, the emphasis is on the new ways of communicating and relating that ICTs enable (Notley 2009). For example, ICTs such as the Internet and social media provide individuals and groups with opportunities to make choices and express opinions in ICT-mediated spaces, to participate in informed social and democratic dialogue, to contribute to the development and control of new media content, and to build their own socially and culturally relevant connections and networks (Maidment and Macfarlane 2009; Mansell 2002; Wilding 2009).

Refugees and ICTs

ICT use by refugees offers an exceptional opportunity to observe how particular ICT-mediated activities contribute to their social inclusion. As forced migrants, they have been translocated to new and unfamiliar environments in which they need to construct meaningful lives. They need information, for instance, to resolve everyday problems, comply with laws and regulations, and orientate to a new culture and society. Not being able to access, interpret, and use relevant informational resources may exclude these newcomers and push them to the margins of society. Thus, social inclusion for refugees is often conceptualized as an information problem, one solution to which is the use of ICTs as tools for navigating the unfamiliar information environment that they encounter (Caidi et al. 2010; Lloyd et al. 2013). However, ICT, especially the Internet and social media, can also mediate communicative or expressive activities that connect refugees with a broad range of people and facilitate their participation in ICT-enabled social and support networks (Caidi et al. 2010). Further, digital media production and virtual spaces such as websites can be used to develop and express distinct cultural identities (Caidi et al. 2010; Panagakos and Horst 2006).

Focusing only on refugees' integration into the local context of their host country overlooks the significance of geographical mobility in contemporary life. Individuals increasingly participate in widespread and overlapping social networks that constitute "a more global, deterritorialized world" (Gifford and Wilding 2013, p. 558). In such a world, being socially included "is significantly a matter of overcoming constraints of space at particular moments of time so as to gain access to the[se] informal networks" (Cass et al. 2005, p. 548). ICT allows information flows and network connections across a range of borders, so that membership of a community is not reliant on physical colocation (Wilding 2009). In particular, refugees inhabit transnational spaces, in which ICT enables them to exchange information and digital content around the world, communicate with family and friends located elsewhere, and continue to monitor events and somewhat participate in the political life of their countries of origin (Benítez 2012; Caidi et al. 2010; Hiller and Franz 2004; Wilding 2012).

The Capability Approach

Identifying exactly how ICTs contribute to a process such as social inclusion represents a challenging analytical exercise. Sen's (1999) capability approach, which conceptualizes development as individual freedom, has been suggested as an alternative conceptual apparatus to analyses of economic impacts or digital divides (Kleine 2013; Zheng and Walsham

2008). Sen (1999) is interested in "the 'capabilities' of persons to lead the kind of lives they value—and have reason to value" (p. 18). His approach shifts our focus from the resources that a person has access to, toward the uses that a person can make of the various resources available to them (Clark 2005). Sen (1999) refers to these uses as functionings: "things a person may value doing or being" (p. 75). Capabilities are the set of alternative functionings from which a person is substantially free to choose (Sen 1999). Capabilities can be thought of as the potential functionings that a person values, but they must represent real opportunities or freedoms to achieve particular functionings (Alkire 2005). The existence of capabilities presupposes the availability of resources, which provide the means to achieve an end. Whether people are able to realize particular functionings depends on a range of personal, social, and environmental factors (including social structures and cultural values) that influence both their substantive freedom to do so (their capability set) and the choices that they make (Clark 2005; Robeyns 2005; Zheng 2009).

For Sen (1985), a person's well-being is his/her "ability to achieve valuable functionings" (p. 200). Well-being can be evaluated in terms of either (or both) a person's achieved well-being or "freedom to achieve well-being" (Sen 1985, p. 201). The notion of well-being intersects with that of agency (Sen 1999): "one's ability to pursue goals that one values" (Alkire 2005, p. 122). Focusing on the ability and freedom to exercise agency "take[s] into account the aspirations and needs of the people affected" (Zheng 2009, p. 72).

Like Zheng and Walsham (2008), we use the central concepts of Sen's (1999) capability approach as "a sensitizing device" (Klein and Myers 1999, p. 75) in analyzing our empirical study. If social exclusion can be considered in terms of "the deprivation of basic capabilities" (Sen 2000, p. 46), then to be socially included, people must have "the substantive freedoms—the capabilities—to choose a life one has reason to value" (Sen 1999, p. 74). Thus, the objective of social inclusion is expanding valued capabilities (Alkire 2005). In an information society, many of those capabilities are mediated by ICT (Mansell 2002). ICTs and their properties, such as information storage and processing, synchronous and asynchronous communication across time and space, knowledge generation and transfer, multimedia content, and networked connectivity, "provide the means to achieve, which can be converted into the capability set of the user" (Zheng 2009, p. 76), rather than being ends in themselves (Robeyns 2005). The focus is on the freedoms engendered by ICTs, rather than on the ICTs themselves. Such capabilities are multidimensional and context-specific.

Our focus on social inclusion links refugees' use of ICT with their capabilities to participate in society in ways that they

value. We take as our starting point Wilding and Gifford's (2013) concern with the potential of ICTs to empower refugees "in their quest for agency and control over their current and future circumstances" (p. 497). We argue that, for our participants, social inclusion is the extent to which they are able to effectively participate in their new society and regain control over their lives. We are concerned with how ICT use contributes to their capabilities to achieve such a life. Sen (1999) notes that

> the assessment of capabilities has to proceed primarily on the basis of observing a person's actual functionings…the valuation of actual functionings is one way of assessing how a person values the options she has" (p. 131).

Thus, the focus of our empirical research is on exploring resettled refugees' actual ICT use, how this is of value to them in their lives in their host country, and what this suggests about how such use contributes to their opportunities for social inclusion.

Research Methods

The participants in this study represent an intentionally sought sample of individuals with a refugee background who have resettled in New Zealand, and who are recipients of a government-funded initiative, *Computers in Homes* (http://computersinhomes.org.nz). Since 2000, this initiative has helped members of low socioeconomic communities to be able to take up opportunities for betterment through the provision of ICT hardware and training (Craig and Williams 2011). A specific module of this initiative, the *Refugee Programme*, offers recently arrived refugee families with school-aged children a 30-hour basic computer-training course, which covers topics such as logging on to a computer, using a web browser, creating and using an e-mail account, and basic word processing, among others. Upon the successful completion of the course, the participants receive a refurbished desktop computer and software, as well as broadband Internet connection and technical support free of charge for one year. The *Computers in Homes–Refugee Programme* provided us with a pool of potential key informants for our research.

The number of participants by country of origin is the following: 25 from Burma,[2] 18 from Bhutan,[3] 3 from the Democratic Republic of Congo, 2 each from Eritrea and Ethiopia, and 1 each from Colombia, Iraq and Rwanda. All the participants experienced a long journey from their home countries, including waiting in neighboring countries for the United Nations High Commissioner for Refugees to decide on New Zealand as their host country. Some spent many years living in refugee camps, where major life events occurred: couples met, got married, and their children were born. All participants had to leave belongings, dreams, friends, and family members behind to resettle in a new and unfamiliar environment.

As part of New Zealand's official refugee quota, our participants were granted permanent residency with entitlement to health and education services and social welfare benefits. They received a state house and have access to support services from various government agencies, voluntary organizations, and community groups. The contrast between these living conditions and those previously experienced often provoked an emotional reaction: "When I…looked inside my [new] house, it was a surprise….It[s] got everything like, bed, TV, sofa! I cried." Other aspects of New Zealand society were also highlighted. "When I came here I found peace," said one participant, while a couple emphasized, "After we came to New Zealand, we learned the true meaning of human life because we are respected."

At the time of the fieldwork, most participants were employed in a range of occupations (e.g., store operator, government officer, housekeeper, interpreter, gardener, checkout operator). Others were studying, mainly English; 10 were unemployed. The participants' previous familiarity with ICTs varied. While most had no or limited experience, a few had a high degree of expertise because of previous education or employment. In most cases, the participants have enthusiastically used the ICT provided to them. Often, a newer, replacement computer has been acquired or additional ICTs, such as laptops and smartphones, have been purchased so that other family members can use ICT. Similarly, participants made arrangements to maintain an Internet connection once the initial broadband access expired.

A total of 39 semi-structured, face-to-face interviews were conducted with 53 participants between July 2012 and July 2013 in 4 different locations across New Zealand. By their choice, most interviews were held at participants' houses or community locations; just two took place in public arenas. The interviews lasted on average one hour. The interviews were conducted in English (six required the assistance of an interpreter), except for one that was conducted entirely in Spanish, the mother tongue of one of the researchers. Where possible, the interviews were audio-recorded. The location of the interviews meant that often interviewees' spouses and children became directly involved in the interview, with

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[2]Although officially the Republic of the Union of Myanmar, our participants call their country Burma.

[3]Participants from Bhutan are Lhotshampas of Nepalese extraction.

everyone sharing their experiences about using computers in a conversational way. The interviews were intended to capture participants' trajectories following their forced displacement and their experience of using ICT upon settlement in New Zealand. An interview guideline was developed and used to ensure that relevant issues were covered in the interview, including participants' information and communication needs, their use of ICT for addressing these needs, and the perceived benefits of ICT use in living their lives.

Data collection and initial analysis were conducted iteratively. Interview notes and audio-recordings were uploaded into a qualitative data analysis software package as the data collection progressed. A thematic analysis identified emergent patterns in the participants' use of ICT. These ICT use practices were then further analyzed in terms of what they suggested about the participants' social inclusion. Attention was paid to the context in which ICT use occurred, participants' espoused intentions in using the ICT, the value they placed on doing so, and how they felt that it enhanced their lives.

Findings

In this section, we present the findings of our analysis. We approached the identification of capabilities associated with refugees' ICT use by examining what our participants reported they were actually able to achieve (and valued achieving) using ICT. Our analysis highlighted five categories of achieved functionings and their corresponding capabilities that ICT use offers refugees: (1) participating in an information society; (2) communicating effectively; (3) understanding a new society; (4) being socially connected; and (5) expressing a cultural identity. While "the sort of participation people are likely to value is unlikely to fall into neat, separate categories" (Notley 2009, p. 1211), we feel that collectively, these five categories of functionings and their corresponding capabilities are a good reflection of the multidimensional nature of social inclusion for these potentially disadvantaged people. For each category, we outline the specific actions or activities that our participants valued doing with ICT and why they valued being able to do so. Pseudonyms are used to refer to participants.

Participating in an Information Society

In many ways, adjusting to life in New Zealand for our participants involves learning to participate in an information society where everyday tasks are accomplished using ICT. For example, participants described how they are able to use ICT to make a doctor's appointment, contact a child's teacher,

look and apply for jobs on online employment sites, bank and pay bills online, and file an online tax return. Such activities reflect the development of skills and behaviors involving ICT use that enable fuller participation in New Zealand society. Prem, from Bhutan, explained how important even simple tools such as an Internet search engine or e-mail are in solving everyday problems and making his life easier in a new environment:

> We can just use it [the computer] for different purposes. For example, we sometimes get invited…to attend a meeting. We do not know where that place is, so we Google and find out the address and direction, how to reach there….If you want to know the office of some of the agencies….We e-mail and make appointment.

E-mail is a common solution to routine communication tasks for many of our participants, as Ugyen, also from Bhutan, explained: "Every day I check the e-mail. I like sending information, corresponding through e-mail." The pervasiveness of this communication mode in New Zealand society was emphasized by Raheem, from Iraq: "Wherever you go, they say, 'Do you have an e-mail address? Give us your e-mail address.'" This was why, he explained, "I taught my wife how to use computers, set up an e-mail account, use e-mail….[So] we can…become more integrated to the New Zealand society."

For Yamin, a Burmese mother of two, her refurbished computer has become a central part of her routine in organizing and planning her life in her new country: "I check my computer every evening….It is just like my notebook, my diary…. Every appointment….What things I have to try….This is my everything." She also uses online shopping, and described her initiation into and adoption of electronic "push" technology:

> Sometimes I order Internet shopping…I use [an online bookshop]. Every time, they send me, 'This is a new book,' or something like that….I give my e-mail everywhere. So [businesses] have a discount, you know, today-only discount, I get advertisement from them.

The importance our participants placed on participating in an information society was most evident when they discussed the opportunity their children had to develop the familiarity and skills with ICT use that would better prepare them for a future life, both in New Zealand and globally. As Nabin, from Bhutan, explained:

> Our children [have] started learning through computers from a young age, so they are able to stay at

the same level as people from other parts of the world. They are able to catch up with the latest technology. It is important.

Communicating Effectively

For many of our participants, an immediate and major challenge of settlement in New Zealand is the need to communicate effectively in a new or unfamiliar language (i.e., English). Face-to-face or telephone interactions with New Zealanders can be a stressful experience for those lacking the confidence to have a conversation in English. ICT offers an alternative channel that can help to overcome this barrier to effective communication in everyday interactions in their new life. Bibek is often asked to act as an intermediary between service providers and his fellow refugees from Bhutan. When communicating with government agencies, he prefers to use e-mail. The asynchronous and typed communication provides a higher degree of certainty in the communication exchange, in both directions:

> The reason for me using the computer to write e-mail is if I have to explain to you an issue. You may not be able to understand all my pronounces and all my accent, you know. If I put it down in [an e-mail] I will be able to make you understand what I am going to tell you. So, it is easier….[Also] I do not understand. You know, some Kiwis, they have very, very strong accent, and they will not be able to explain [an issue].

ICTs and the digital resources they provide access to are a valued resource for our participants in developing their competency with English language. Cecile, who fled Congo, is using an online program to teach her daughter English. Raheem explained how he uses various online tools to improve his writing in English:

> When I do not know how to write it in English, I use the Arabic keyword and translate it with the Google translator….I try to write a lot. There is a program on this computer…that teaches you how to write [English].

Nyan, a bilingual assistant for his local Burmese community, is working toward a qualification in interpreting. He relies heavily on ICT use to supplement his classroom experience and complete his homework. Besides using multiple online resources for improving his English, Nyan and his wife are doing an online English course. Such actions are suggestive of their intention to participate fully in New Zealand society.

Understanding a New Society

Our participants described using ICT to make sense of New Zealand society and learn how an unfamiliar culture and way of life works. Often this involves accessing informational websites and search engines. As Nabin remarked, "[The computer] has helped us to be integrated here." For Kim, a Burmese man, keeping informed about current events via Internet-based news is an important part of his daily routine, providing him with information relevant to his new life: "I watch news every morning on the computer." Cecile described how using the Internet contributes to her well-being in New Zealand:

> You can go to Google and then you can see how you must stay here in New Zealand. How the life here in New Zealand [is], how Kiwis are….How you can do the things that can help you, and then your life can be eased.

By using ICT to monitor their new environment, our participants identify the patterns that govern local events and actions, enabling them to conceive an appropriate life plan for their new circumstances. Ganesh, a university-educated, former government employee in Bhutan, explained how, using ICT, he explores future housing options for his family: "We are trying to find the house that is suitable to us…but have not got one yet." He pointed out that his search is not for the immediate future. He scans the current housing market using the Internet to be informed and prepared for when he is in a position to buy a house.

Ganesh is also able to research the culture and history of his new country:

> Through the computer…I learn a lot about Māori culture and New Zealand history. About European settlement….The way Māoris were living at that time. And tracking from there to this day, how the government system is operating, and how the Māoris are coping with the different situation.

Ganesh uses this knowledge to develop an understanding of the position of the indigenous people of New Zealand. We infer that Ganesh values a meaningful engagement with the political history of his host country and its relevance to current societal issues.

Being Socially Connected

In responding to the challenges of life in a new country, our participants seek interaction with and support from other

members of their particular ethnocultural group living in New Zealand and overseas. E-mail is an obvious tool for informal communication among members of such groups. Kyi, a refugee from Burma and a competent computer user described how he uses e-mail to provide technical assistance to his compatriots in other parts of New Zealand: "Sometimes their computer is broke. During this time, they say to me, 'How to repair?' Sometimes I advise and sometimes I control…and repair his computer."

Members of one Bhutanese community in New Zealand use social media as part of their ethnocultural network. As Ganesh explained, "We upload all the information into the Bhutanese community Facebook [page]." Nabin, who is from another Bhutanese community, uses desktop publishing soft-ware to prepare and print a community newsletter. Electronic distribution of the newsletter is planned for the near future, when more community members have acquired the necessary ICT: "We are looking forward to send it through by digital means, by e-mail…because in New Zealand everything is going to be digital!" The ICT-supported networks that our participants belong to are also transnational. For example, Than, explained how he was the moderator of an international online forum for a particular Burmese ethnocultural group:

> There are people [in the] U.S., Australia, Norway, and New Zealand as well. We can share the news...what is happening. If they put it in the forum, we know…"Oh, some of our friends passed away," or something happened.

Seeking information on missing persons and loved ones is an important motivation for using ICT. Cecile lost touch with her husband and parents when her village in Congo was raided: "Because I had to run, I do not know if they are still alive or…if they have been killed….I [keep] asking and asking." Her use of ICT offers the possibility that her anxiety about past misfortunes may one day be relieved:

> You can find people you have not seen for a long time….Maybe this person was killed or maybe is still alive….When you type her name on Facebook, you find her, and you say, "Oh, she is still alive!"

For those participants wanting to communicate and interact with family and friends remaining in countries of origin or dispersed as refugees in other countries, ICT offers the means to overcome spatial and temporal boundaries. As one partici-pant remarked, "If I had not the computer, I would not be able to be in touch with friends and relatives." Adan, from Bhutan, explained: "Sometimes I talk to my family in America using Skype….I can see [them] and talk. I ask, 'How are you?'" Applications that offer voice and video calls

via the Internet provide an opportunity to speak and hear family and friends in one's own language, and often to see them as well. Thi, a Burmese woman, exuded excitement when she described communicating with her parents in Burma:

> The website [supports video-chat, so] we can talk and we can chat….My parents got Internet. They sit there and I sit here, and I watch them! You know, I watch them! But [I] cannot hear clearly what they say and they cannot hear me either, so I type and they read and type back. But I am happy to see them on video!

Despite the imperfect ICT-mediated communication that Thi sometimes experiences with her parents, her enthusiasm and the emphasis that she places on seeing them point to the affective support and comfort that she receives from the encounter.

Expressing a Cultural Identity

The ICT-supported ethnocultural networks described above also allow our participants to reaffirm who they are and where they came from. The maintenance and expression of a shared cultural identity is strengthened through the online consump-tion and production of audiovisual cultural content. For example, Cecile, who reads Congolese-produced news online, described how this use of ICT helps her to maintain a close emotional connection with her home country: "We are here but still want to know what is going on in our countries…. You miss your country….We pray for peace in our country." This sense of cultural belonging is enhanced through the consumption of content in one's own language. As a Burmese participant explained, he reads the news everyday on the BBC's Burmese website, "Because it is in my own language." Similarly, Ganesh emphasized the usefulness of ICT for maintaining cultural identity: "We do watch Nepalese videos [online] because it is important to retain our culture and language for the children….Until now they speak Nepali. We want them to [continue to] speak Nepali."

Habtamu, a man in his sixties from rural Ethiopia, uses his family's computer exclusively for watching Ethiopian videos in the Amharic language. His children commented that, by doing so, Habtamu alleviates his nostalgia for his home country. Because of his unfamiliarity with the characters that comprise the English alphabet, Habtamu relies on his children to enter the address of certain Ethiopian websites for him. Aom, a Thai woman married to a refugee who fled Burma, visits Thai websites on a regular basis "to get Thai recipes because they are in Thai language." These examples show

how ICT use can facilitate the maintenance of cultural identities while addressing the demands of everyday life.

Some participants engage in producing digital content for their local social and cultural networks. For example, Bhutanese, Burmese, and Congolese individuals subscribe and contribute to their respective community e-mail lists. ICT offers other opportunities for expressing cultural identities. Zaw, a Burmese man who lives with his wife and three children, has contemplated the possibility of documenting his family history using ICT, preserving his family's cultural and ethnic roots for his children and grandchildren growing up in a different country:

> I would like to write something about my family story….If I were good at computers, I could create a website….Maybe my son can do it….So in the future, my grandson or granddaughter can read about it.

Discussion ▰▰▰▰▰▰

In this paper, we develop an understanding of social inclusion that is consistent with Sen's (1999) notion of individuals having the freedom to live the lives that they have reason to value: "to undertake the actions and activities that they want to engage in, and be whom they want to be" (Robeyns 2005, p. 95). In the specific context of our study, our participants have experienced exceptional circumstances that involved a significant loss of control over their lives. Forced to leave their homes and countries, as refugees they face the challenges of settling in a society of which they have little or no prior knowledge, repairing their disrupted lives, and constructing a meaningful life under these new circumstances. We argue that, for these individuals, social inclusion reflects the extent to which they are able to effectively participate in their new society and regain control over their lives. Without these achievements, they risk, as one participant reflected, "still living as refugees, even though in much better conditions than the ones we had before."

We suggest that ICT use contributes to social inclusion by expanding the opportunities available to people from refugee backgrounds to exercise their agency and achieve improvements in their well-being that enhance their participation in society and control over their circumstances. Based on our analysis of the achieved functionings of our participants, we identify five particular capabilities that ICT use offers refugees.

- *To participate in an information society*. Being able to use ICT in everyday activities in a purposeful and selec-

tive fashion gives many of our participants a sense of accomplishment and a degree of control in managing the day-to-day aspects of their lives. The importance of this capability is reflected in the emphasis that various participants placed on themselves and their children becoming integrated into a global information society (Mansell 2002).

- *To communicate effectively*. A lack of proficiency in the English language represents the largest barrier to the majority of our participants' effective functioning in New Zealand society (see Caidi et al. 2010). E-mail offers a communication channel that reduces both the possibility of misunderstanding and the stress involved in everyday interactions in the English language. Online tools and resources were proactively used by some participants to improve their competence and confidence with the English language, arguably signaling a desire to be able to participate more fully in New Zealand society.

- *To understand a new society*. ICT offers access to orienting information that can assist newcomers in transitioning and integrating into a new environment. As Lloyd et al. (2013) note, "A prerequisite for social inclusion is knowledge about the social, economic and community dimensions through which any society is constituted" (p. 122). Such ICT use can suggest a desire for a deeper understanding of and engagement with a new society.

Digital capabilities, effective communication, and contextual understanding are all aspects of resettled refugees' lives that contribute to their effective participation in society and ability to exercise agency in pursuit of valued goals. The ability to be effective in interacting with one's social and physical surroundings satisfies a basic psychological need for competence (Vansteenkiste et al. 2008). Participation has intrinsic value in a person's quality of life, particularly as an expression of empowerment and agency (Drèze and Sen 2002).

- *To be socially connected*. Our participants use a range of ICTs to communicate with family and friends in New Zealand and other countries, to seek and obtain information on the fate and lives of persons important to them, and to interact with others from their ethnocultural background in formal and informal social and support networks. The maintenance of transnational ties is a source of emotional support and psychological comfort that reduces emotional stress and social isolation in a new environment (Benítez 2012; Caidi et al. 2010; Hiller and Franz 2004). Such ICT use alleviates the burden of forced displacement and disrupted lives (Gifford and Wilding 2013), enabling refugees "to better link together

the places and communities that have become fragmented through their movement" (Wilding 2012, p. 503). ICT also plays a role in establishing new relationships and support networks that contribute to refugees' ability to become integrated into and function in a new environment (Caidi et al. 2010; Hiller and Franz 2004). Participation in these transnational and local networks speaks to a human need for relatedness and a sense of belonging to a social group (Vansteenkiste et al. 2008). Such networks play a critical role "in maintaining a 'good life' and in structuring the meaning of inclusion and participation" (Cass et al. 2005, p. 551).

• *To express a cultural identity.* Our participants still identify as members of the communities from where they originated and found ICT a valuable means of maintaining attachments to their cultural backgrounds. While mindful of their current circumstances and trying to respond to the challenges of life in a new environment, the disruption and displacement in their lives spurs a desire to maintain bonds with their past and reaffirm who they are. This need for cultural belonging is manifested in the consumption of online cultural content and news in their own languages, strengthening cultural values and creating a symbolic closeness with their countries of origin (Benítez 2012; Caidi et al. 2010). Such ICT use fulfils a need for individuals who have resettled in an unfamiliar cultural environment that does not necessarily offer all that they may require. It enables adjustment to the new environment and "a sense of rebuilding by emphasizing continuity between the new and the old" (Hiller and Franz 2004, p. 741). Similarly, an online forum or website offers an outlet for the creation and expression of cultural identities, enabling refugees "to expand their social space and by so doing challenge the restrictive boundaries imposed by dominant host societies" (Panagakos and Horst 2006, p. 118). While the use of ICT to express a cultural identity in these ways could be viewed as backward-looking, it helps refugees to resist assimilationist pressures that may accompany their settlement in a new society (Gifford and Wilding 2013).

The generation of these capabilities is contingent on existing social arrangements and environmental conditions. In particular, the degree of socioeconomic stability that our participants experience in New Zealand provides the platform on which they can exercise their agency to use ICT in ways that they believe enhance their well-being. Our participants emphasized both the material conditions that they experience in New Zealand and the less tangible aspects of a stable democracy and largely tolerant society, characterized by a high sense of fairness and respect for human rights. Such observations serve as a reminder that our participants'

opportunities for development were seriously curtailed in their previous circumstances.

Sen's (1999) capability approach provides the framing with which we are able to conceptualize the entities and relationships involved in the social inclusion process. Using these concepts, we can begin to develop an explanation of the social mechanisms (Avgerou 2013) through which ICT use contributes to the social inclusion of refugees. Our explanation traces the causal process by which individuals' interaction with ICT leads to the achievement of outcomes that they value within a particular social context, as depicted in Figure 1.

We propose that ICT constitutes a resource from which particular capabilities that are of value to persons from a refugee background can be derived. Through ICT use, the achievement of these capabilities reinforces refugees' agency and enhances their well-being in ways that contribute to their participation in society and control over their lives. Our analysis of ICT use resides on the conceptually different yet strongly intertwined notions of agency and well-being (see Nussbaum 2011). Whether the individual chooses to realize the ICT-enabled capabilities or not is itself a manifestation of agency. The evidence that we present in this paper exemplifies particular ICT uses by which individuals actively pursue the goals that they value. This process does not occur in a vacuum. Both the opportunities offered by ICT and their realization through ICT use are facilitated and constrained by the social arrangements and environmental conditions within which these persons are situated.

Conclusion

We have analyzed the use of ICT by a group of resettled refugees as a way of exploring how ICT can contribute to social inclusion. We suggest that for such persons social inclusion represents the extent to which they are able to function effectively in their new society and regain control over their displaced and disrupted lives. Our empirical analysis suggests five ICT-enabled capabilities that are of value to them in achieving these goals: to participate in an information society; to communicate effectively; to understand a new society; to be socially connected; and to express a cultural identity. We offer an explanation of the process by which ICT use contributes to refugees' social inclusion within existing social arrangements and environmental conditions. Although incomplete and indeterminate (Avgerou 2013), this explanation has sufficient generality to be useful in other contexts.
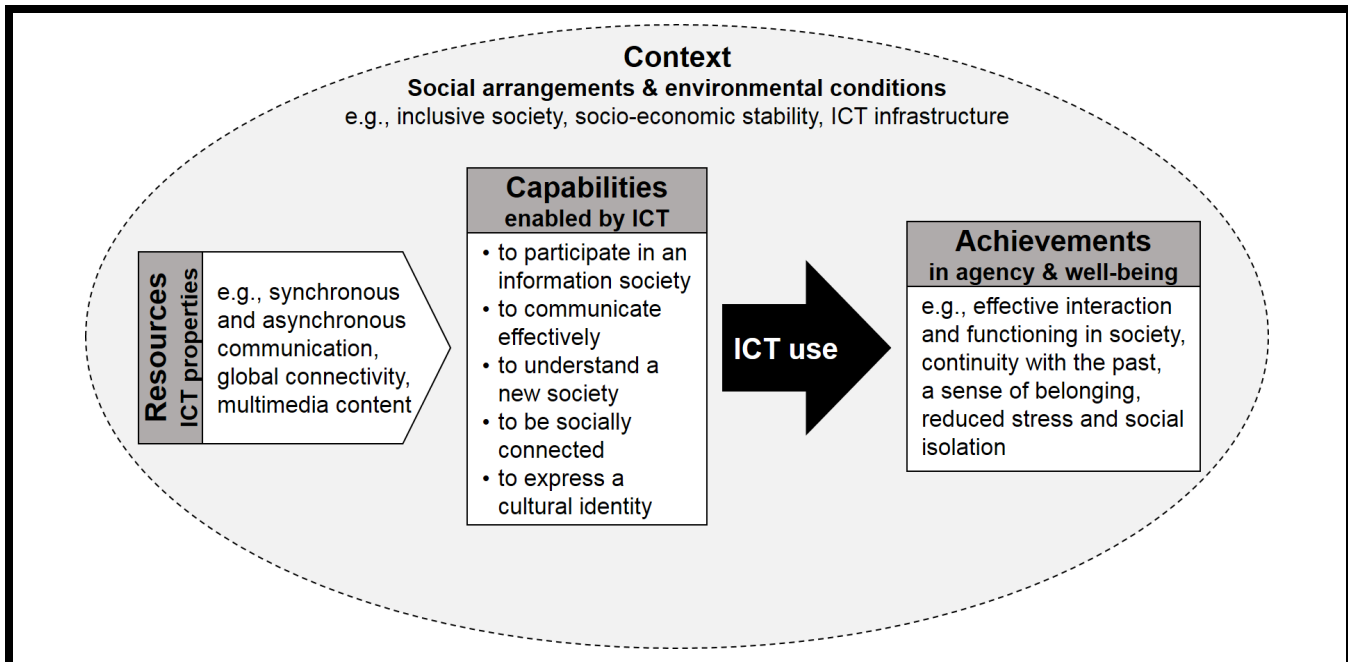
Context
Social arrangements & environmental conditions
e.g., inclusive society, socio-economic stability, ICT infrastructure

Resources
ICT properties

e.g., synchronous and asynchronous communication, global connectivity, multimedia content

Capabilities
enabled by ICT

- to participate in an information society
- to communicate effectively
- to understand a new society
- to be socially connected
- to express a cultural identity

ICT use

Achievements
in agency & well-being

e.g., effective interaction and functioning in society, continuity with the past, a sense of belonging, reduced stress and social isolation

Figure 1. The Contribution of ICT to the Social Inclusion of Refugees

Further research is needed to investigate the more granular mechanisms that underpin the relationships between the entities in our causal process. For instance, the relationship between ICT and its properties, and the opportunities it provides users, could be further unpacked using the concept of affordance, in which perceived possibilities for action arise from the relation between an individual and the technology (Majchrzak and Markus 2013; Zammuto et al. 2007). Another promising research avenue involves understanding why a person chooses to use ICT in particular ways. It was clear in our study that resettled refugees are as much oriented toward the past or future as to the present. This invites us to consider how these individuals agentically orientate themselves within multiple and overlapping temporal contexts (Emirbayer and Mische 1998).

Our research has a number of implications for policy and programs on social inclusion. First, social inclusion is a multidimensional, relational, and dynamic process, in which the agency of those to be included is a central concern. Interventions that ignore this are susceptible to the imposition of dominant societal norms and values in ways that do not recognize diversity in human lives. Second, any consideration of social inclusion in an information society needs to include the ICT-enabled capabilities that individuals value in constructing meaningful lives. Third, for many individuals in contemporary society, ICTs facilitate the maintenance of transnational connections and identities that matter to them. The promotion of social inclusion for such people, therefore, needs to recognize that their lives are not restricted to their local context. Fourth, the social inclusion of displaced people such as refugees is more than an information problem; it involves communicative and expressive activities that repair disrupted social and cultural lives.

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