

Exploring the Role of Digital Diaspora in ICT4D Project Implementation

ABSTRACT

The paper explores challenges and opportunities in implementing a project for Information and Communications Technologies for Development (ICT4D) from a 'Digital Diaspora' perspective; communities of diaspora in associations or organisations organized over the Internet. The project under consideration is the Vicky Standish e-Education Centre (VSeEC) located in a remote south Indian village. The key project stakeholders are existing and potential future users, other villagers deriving indirect benefits from the project, and an Australian-based NGO, The East West Overseas Aid Foundation (TEWOAF). TEWOAF's founder and supporters mainly comprise members of the Indian diaspora globally, non-diasporan host country nationals, and also include local development partners who provide a significant portion of the intellectual and technology capital on which this project is based. The VSeEC is managed through a combination of local employees and overseas volunteer advisers, some of whom are members of the Indian 'Digital Diaspora'. This unique way of managing a telecentre operation presents several challenges and also offers opportunities for local staff to benefit from non-local expertise, and for diaspora and foreigners alike to learn together with the local staff. In our discussion and analysis section, we consider the feasibility of operating a project of this nature as an informal partnership between local employees and remotely located advisors and suggest ways of overcoming challenges that such co-operation entails. While it is understood that there are several projects where members of the Digital Diaspora (DD) and non-diaspora collaborate remotely on ICT4D and other initiatives in the developing world, this field has not been subject to much research. With access to ICT becoming more widespread in the developing world, this way of collaboration can make a considerable contribution to capacity building by both sides of such partnerships.

Keywords : Diaspora, Digital, ICT4D, Telecentre, Developed, Developing

INTRODUCTION

There are different ways in which migrants relate to their family and communities in their countries of origin. Factors such as the economic, political, and security situation there, circumstances surrounding the migration, age, duration of migration experience, socio-economic status, and compatriot communities in the 'host' country influence this relationship, which is likely to be dynamic and changing with the circumstances in the host and origin countries. Despite the prominence of Information and Communications Technology (ICT) specialists among the Indian diaspora, there are still many areas in India unserved by ICTs and in this paper we explore the role that the diaspora plays in remedying this situation, by presenting a case study of an e-education centre.

The paper is divided into two sections. The first section begins with a brief overview of the various forms of participation of diaspora communities in home country development and builds on this with a description of the enabling effects of ICTs in diaspora involvement and, in doing so, we present the emerging concept of the Digital Diaspora (DD). The second section presents the case study of a project based in South India that has involved a partnership between a non-DD organisation and DD. In detailing the DD's role with its involvement in focus, the case study shares experiences gained and challenges faced in the process of collaboration, and also describes the methodology utilized for data collection and analysis and preliminary results obtained.

What we believe to be unusual about this project is the informal nature of the collaboration, an approach presenting several challenges, some of which are formulated in the following research questions as describe below which we attempt to address in the findings and discussion section further on.

- What are the benefits of collaborating in this way?
- Are there benefits to all parties involved in this process?
- What are the disadvantages?
- What can we learn from the process of involving an informal network?
- How can non-diasporans be more actively engaged in these initiatives as a part of the DD and through it ?
- Is this a model that can be developed for wider use by the development community?

BACKGROUND

The paradigm of the "Brain Drain" - the migration of high skilled people from less to more developed countries - has long been thought of as a critical issue and an unsolved problem of source countries

(Lodigiani 2008). The underlying issue is that developing countries with already low levels of human capital investment are further affected by the outward migration of highly-skilled professionals. The cumulative “brain drain” since 1990 has been estimated at 15% for Central America, 6% for Africa, 5% for Asia, and 3% for South America. much of it to OECD countries (Commission on the Private Sector & Development 2004).

Several researchers have studied this from the vantage of the impact of the flight of human capital impact on source country economies (Rosenzweig 2005; Wescott 2005). However, as financial remittances flowed from diasporas back to their home countries and in some cases outstripped official ODA, and as it became increasingly clear that diasporas were taking a deeper and sometimes more strident interest in home country issues, scholars and institutions alike began to realize that not only was a longer-term view required to more accurately assess the overall impact of migrant outflows on home countries, but that perhaps there was a need for a new paradigm beyond the predominant brain drain paradigm, namely that of the ‘Brain Gain’.

‘Brain Gain’ is defined as the capacity of members in scientific and technical diasporas to mobilize the resources which are available to them in their host countries for use by the scientific and technical networks in their home countries (Meyer & Wattiaux 2006). It was also suggested that emigration could also benefit the sending country through “incentive and feedback effects” (Lodigiani 2008) in the form of remittances, investments, trade relations, new knowledge, innovations, shared attitudes and information (De Haas 2005; Vandebussche et al. 2006; Findlay & L. Lowell 2002). Emeagwali (2001) contends that one spur for this feedback is that by being in their host countries, professionals are able to enrich their skills and expertise in a way that they could not have done in their countries of origin, because of better access to professional resources in the host country. Case studies also suggest that skilled migration can prompt families to invest more in education, both because of the prospect of securing an overseas job, and because the skill prices are pushed up in the source country as skilled migrants leave (Wescott 2005).

In the vein of the paradigm of the Brain Gain, in addressing development concerns of their country of origin, individual migrants as well as migrant communities are becoming important players in transnational civil society, particularly through the flow of funds between family members or between communities, e.g., in the form of funding schools (McIlwaine 2008). Unless migrants come from a well-resourced family, remittances are likely to feature high in the relationship between them and their country of origin. The volume of remittances increased from USD52 billion in 1998, when it was at the

same level as official development assistance (ODA) (Kapur 2001) to USD 316 billion in 2009 (World Bank 2010) exceeding the ODA level of USD 119.6 billion (OECD 2010).

This trend is likely to increase as home governments are increasingly soliciting remittances and offering policy incentives such as dual citizenship and tax-free investment opportunities to support their efforts (Lowell & De la Garza 2000). However in reaction to the uncertain effects of direct financial remittances and also in not having specific members of home country-based family to contribute financially towards, a relatively recent development has been the emergence of home town associations (HTAs) or regional clubs which seek to better channel and coordinate remittances for development purposes (Brinkerhoff 2003). While HTAs and regional clubs are not strictly forms of DD involvement, they do indicate a trend in diaspora involvement beyond country of origin-based family and social circles.

In addition to HTAs, more recent perspectives on remittances promote attention to a broader perspective that includes the idea of human capital transfers in the form of social remittances. Wescott (2005) points out that such social remittances, as opposed to just financial capital remittances, can also change social values and cultural practices in a local-level, migration-driven form of cultural diffusion. The role that these resources play in promoting immigrant entrepreneurship, community and family formation, and political integration has also been widely acknowledged (Levitt 1998). Further, Sorensen (2004) credits this to the establishment of scientific diaspora networks.

Diasporas have also helped transform race politics (Everett 2009). Perhaps most significantly, however, diasporas are set to play a key role in development activities within the home country. Brinkerhoff (2003) makes the point that diasporas are in their nascent stage in terms of purposive involvement in development and reconstruction, particularly in co-operation with traditional development actors. Their hybrid identities and diversity in terms of related allegiances, migration-generations, and resources, including skills, suggest that their potential role in international development and reconstruction will be as diverse as their identities.

It has become clear to observers that the incorporation of the large diaspora communities in development planning can bring many benefits to donors as well as the diaspora communities (Tetty 2002; Martin 2001; Sorensen et al. 2003; USAID 2002; Orozco 2003; Brinkerhoff 2008). Brinkerhoff (2004) suggests that the most noticeable and formally recognized contributions of diasporas to their home territories include repatriation for the purpose of capacity building, economic remittances, and international advocacy. In line with this, the (Commission on the Private Sector & Development 2004) states the major forms of

diaspora involvement are in supporting entrepreneurs in their homelands with remittances, informal financing of small businesses, and business advice and mentorship. This crediting of accelerated skills-building and entrepreneurship-fostering to diaspora involvement is made on the basis that the diaspora in advanced economies is suited to mentoring local entrepreneurs, or becoming investors in home country enterprises or re-locating as home country entrepreneurs themselves. Meyer (2005) states that diasporas at the very least help to create positive externalities that can be used by their networks to boost and make more buoyant home country markets.

Sorensen et al. (2003) make the point that from a political standpoint that interests and obligations that result from migrants' simultaneous engagement in countries of origin and destination drives political activism resulting from cultural identity. Brinkerhoff (2003) suggests that diaspora communities contribute to international development through advocacy activities and that such support may constitute a potential threat to home country governments as diasporas seek to mobilize indigenous civil society and/or solicit political pressure from host country governments and international organizations. Other researchers have highlighted the diaspora and returning migrants' role in home country political reform (Brainard & Brinkerhoff 2003; Massey et al. 1998; De Haas 2005). This underscores the fact that the development effects of migration are not limited to financial remittances and investments, but also include an important socio-political dimension.

CALL FOR RESEARCH

There have been calls for further research in several areas of the role of diaspora in development driven partly in recognition of the significant contributions that they can make to their countries of origin. Much of the literature on diaspora communities has focused on remittance-related development and as diaspora remittances are targeted at individuals within the home country, these contributions have generally been at the micro-individual and informal levels. A few researchers have attempted to conceptualise emerging practices of the diaspora, including and beyond remittances, under the rubric of "transnationalism" (Vertovec 2002; Ammassari & Black 2001; Meyer 2001). However, as these transnational approaches are based on new economic and technological realities – the proliferation of ICTs being an example of the latter – it is necessary to determine how this notion of the transnational diaspora and its development potential is impacted by and facilitated by ICTs. Others have proposed the notion of a scientific diaspora and "brain circulation" (Saxenian 2002) but detailed analyses of these initiatives are limited, and based on a specific nationality (Wescott 2005).

Similar to other ICT4D initiatives, longer-term sustainability of initiatives designed to harness skills and

other resources of the diaspora community in the provision of ICT facilities requires considerable focus, particularly on how an ICT facility can improve the livelihoods of the community in addition to the needs associated with infrastructure, hardware, software, and on-going maintenance. It is unlikely that members of a migrant community will have all the skills and resources required to attend to these many facets of ICT4D. This is where partnerships become critical. Brinkerhoff (2008) suggested that successful partnerships should facilitate co-ordination and responsiveness and that this requires formal structures as well as informal processes. Perhaps the most significant call for research relevant to this paper, revolves around the benefits that diasporas bring in the field of international development, particularly in partnerships with donors, and international and local NGOs, including roles in recruiting expertise, disseminating information, acting as intermediaries between international NGOs, local NGOs and local communities, and potentially as implementing partners (Wescott 2005). Brinkerhoff (2009) makes the demanding point that future research will also be needed to corroborate any potential identified, to determine how representative it might be, and to test its sustainability.

THE DIGITAL DIASPORA

In providing background to the role of the DD, which crucially depends on ICTs as an enabler, we begin with the now classic example of a particular form of ICTs in the Short Messaging Service (SMS) which is essential for the financial remittance to occur. Communication about remittances is an important part of ICT usage in many developing countries and Mobile banking which enables direct funds transfer is an important example of this. Further, over 40% of Grameen Bank member phone users indicated that communication about financial matters in general and remittances in particular, with family members were the main reasons for using the telephone (Dagron 2001). For all their benefits, however, remittances may not necessarily contribute to development in the form of empowerment or capabilities (Sen 1999) as they can be used for conspicuous consumption rather than investment for the future.

In addition to being a direct enabler of the diaspora-induced financial development of the home country, ICTs are also enablers of diaspora mobilization. Successful mobilization is dependent on a number of factors, ranging from building a shared social identity (Pratkanis & Turner 1996) and providing an organisational or networking base (Klandermans & Oegema 1987) to generating a sense of efficacy and subsequent impact (Kelly & Kelly 1994; Hinkle et al. 1996). Further, development issues that are the drivers behind the mobilization effort need to be appropriately framed in order to focus individuals' attention and energy and enable effective co-ordination of their efforts (Snow et al. 1986).

Broadly speaking, three factors inform diasporas' mobilization to influence the homeland - their ability, the enabling environment, and their motivation (Esman 1986). ICTs can contribute to each of these. They facilitate diaspora mobilization through the organisational and networking resources it represents (e.g., bridging social capital), as well as providing a forum for solidarity and collective identity, which results in valuable experiences that produce positive emotions and psychological empowerment (Reference). ICTs also facilitate access to other economic, political, and informational resources; enable efficient and sometimes enforceable issue framing within groups; and assist in cultivating a sense of efficacy through information dissemination about progress and success in achieving collective improvements (Brinkerhoff 2009).

Where DDs are potentially set to play the most significant role is in involvement with home country poverty-alleviation development initiatives. Diasporas from into diaspora associations and organizations, and as a result of transnational networks developed over time cultivate bonding, bridging, and bridging-to-bond social capital (Putnam 1993; Anheier & Kendall 2002). Those diaspora organizations that are able to extend this social capital to their home communities either partly or wholly organized over the Internet do so as DDs (Brinkerhoff 2009).

ICTs can also assist in joint economic and entrepreneurship initiatives between diaspora and their country of origin brethren such as those being undertaken by the Ghana Cyber Group (Tettey 2002) and the Digital Diaspora Initiative¹ launched to build strategic partnerships between African IT entrepreneurs in the diaspora and women's organisations and business associations in Africa (Brinkerhoff 2009). ICTs also play an important role in the formation of scientific diaspora networks which aim to build scientific capacity within developing countries by linking expatriate scientists with their local counterparts. As Schlegel & Wiedemeier (1994, p.2) point out, "computer mediated communication could provide a missing link needed to bring together 'virtual' scientific communities, based on fields of activity and interests, rather than on the mere coincidence of vicinity." A pioneering example of such a network is the UNESCO-led Digital Knowledge Networks (DKN) initiative (Meyer & Wattiaux 2006).

Brinkerhoff (2004) suggests that there is the potential for a synergistic relationship in a partnership between development NGOs and DDs. DDs represent not only a wealth of information, human resources, skills, and networks which can be mobilized in support of existing donor programs and for the initiation of new ones, but also provide a ready, structured network for reaching out to other dispersed, heterogeneous diaspora groups for information dissemination, public relations, and marketing of donor

¹ See http://www.wougnet.org/Events/UNIFEM/ddi_ug.html for more information

programming (Brinkerhoff 2009). In addition to these, diaspora organisations also provide several unique advantages (Brinkerhoff 2003), derived from the absence of language and culture barriers and their ability to better understand and adapt to foreign approaches and technology to the homeland context (Wescott & Brinkerhoff 2006). DDs are also better placed to involve local professionals and local development partners (Brinkerhoff 2009). Lest we forget the role that ICTs can play for the primary stakeholders in the development process, its direct beneficiaries, the Internet offers the means to make their voice heard, provides hard-to-reach populations access to information and resources beyond their physical location which includes access to diaspora networks (Mele 1999, p.305).

In concluding, diaspora organisations are increasingly active transnational actors and their use of ICTs to organize into DDs facilitates this trend (Brinkerhoff 2004). While not a panacea or a “magic bullet”, Edwards & Hulme (1996) make the point that DDs do offer promise to the international development sector as a whole by expanding access to global networks and resources and improving the relevance, representativeness, and responsiveness to local needs. In an increasingly complex and resource-constrained development network, DDs are poised to play an increasingly relevant role (Casabruil et al. 2000; Cerny 2001) and their ability to collaborate on-line is a key feature in the case study which we present next through the case study.

CASE STUDY : THE VICKY STANDISH E-EDUCATION CENTRE

By turning to a specific case we demonstrate some of the first-hand experiences of the observed features of diaspora contributions to home-country programs. The East West Overseas Aid Foundation (TEWOAF), an Australian-based NGO and its Indian partner organisation, the East West Foundation of India (TEWFI), abbreviated as “TT” in this paper when referring to both organisations in this paper - fund and operate a not-for-profit ICT4D initiative, the Vicky Standish e-Education Centre (VSeEC), named after an Australian who donated funds for the computers. Vicky Standish herself was introduced to the concept of the VSeEC by TT’s founder, Dr.Natteri Chandran, a member of the Indian diaspora based in Melbourne, Australia. This represents an example of the leverage of bridging social capital developed by diaspora within host countries.

The VSeEC forms part of a range of activities by these organisations in the Alamparai-Kadapakkam area in the Indian state of Tamil Nadu, dating back to 1998, with the establishment of the Uluru Health Care Centre (UHCC), providing free primary health care, followed in 2003 with the Uluru Children’s Home (UCH). The VSeEC has a purpose-built computer centre adjacent to the UCH and this is where its activities started in 2008. TT also operates a range of community development activities in the area.

The physical infrastructure of TEWFI is located at the backwaters of the Bay of Bengal, in a relatively isolated rural coastal community, five km east of the East Coast Road (ECR), between Chennai (125km) and Pondicherry (46km). The catchment area of TEWFI's activities is within a radius of approximately five km from its complex, incorporating seven villages, three of which are defined as fishing villages and the others as farming villages. The main village of Kadapakkam, on the ECR and the market one km further inland are included within this radius. Administratively, the area is in the Edakalinadu Panchayat, Cheyyur Taluk, Kancheepuram district. There are also informal leadership structures within the villages. The 2001 census showed a population of 25,793 in Edakalinadu, the lowest administrative level for which census data could be found.

When VSeEC was established in 2008, the area lacked broadband connectivity, and with the centre serviced by a wireless local loop service without data capability, dial-up Internet access was not an option. The Internet could only be accessed via GPRS and CDMA of questionable quality, but as these services were quite expensive, they were only used for administrative purposes and had on special occasions provided villagers with information, e.g., of examination results. The local telephone exchange in Kadapakkam, despite being located along a main road and serving a reasonable population size, was not equipped with DSL until late 2009. There are, however, public Internet facilities in the area which provides services such as computer courses, access to computers for typing, and similar functions on a commercial basis.

THE VSeEC

When TEWOAF decided to expand its activities, it approached Engineers Without Borders Australia (EWB) to partner on this project and EWB became responsible for designing and has been instrumental in operating the VSeEC through its volunteers, but staff (one full time systems administrator and one part time employee) and other operating expenses are funded by TT. Following the inauguration of the VSeEC in early 2008, other overseas volunteers, some of whom are of Indian origin, in different countries have formed a loose network in support of VSeEC. This network has no formal role to play and no formal membership.

As inscribed on the inauguration plaque at the entrance of the VSeEC building, '*.....with intent to serve the local community*', the aim of this initiative is to serve as a resource for the local communities as well as for the children living at UCH.

Focus group discussions involving participants from specific stakeholder groups including leaders from fishing and farming villages, parents from fishing and farming villages, a women's self-help group including members from fishing and farming communities, a youth group, and employees of an NGO, indicated that there was enthusiasm concerning the use of computers by children at the centre. The words expressed in the session with village leaders that the VSeEC is the "Gift of God" reflected a widespread perception. Education was a recurring and dominant theme throughout the sessions and there was general agreement that VSeEC had boosted the prospects for good education outcomes for children.

Shortly after the completion of this research, Vicky Standish made another donation, earmarked for computers for the VSeEC. The informal network entered into an extensive, at times acrimonious, email debate on how to make the best use of this donation and various parties in this debate obtained quotes for a range of options from various suppliers. Stand-alone PCs were compared with thin client systems on capital costs and total cost of operation, taking into account software and maintenance expenses, as well as power consumption. Considering the relative isolation and power consumption heat emissions from personal computers, which would have necessitated air-conditioning, it was decided to adopt a novel approach to a computer centre, the computer wallah. Named after the driver cabin in auto-rickshaws, this project consist of taking laptops to schools, visiting each of four secondary school once a week, following a program agreed with teachers and principals. This innovative project complements the often inadequate formal education system, providing support for students from marginalised families, who would not have been able to afford computer training for their children. The stationary VSeEC continues providing computer access and training for children living at UCH and for other children coming to the centre, primarily on week-ends and school holidays. The computers at the centre are also used by some adolescents and adults for typing.

Through a partnership with MS Swaminathan Research Foundation (MSSRF), VSeEC has received information on CDs relating to agriculture, health and other practices that can enhance livelihoods of villagers. VSeEC is in the process of considering the best ways in which this information can be made available to villagers, using the MSSRF concept of village knowledge centres (VKCs) from MSSRF. Similar to the computer wallah, the VKCs are likely to be of a mobile nature to make its services more accessible to the local population. As much information is available off-line, Internet connectivity is not necessary for all the operations of the VKC and applications providing real-time access can be accessed at the centre. As this project was about to be deployed in late 2009, inter-village tensions broke out in the area and local staff considered this not to be a suitable time to launch a service of this nature. In the meantime, VSeEC has used its ICT infrastructure for assisting villagers with miscellaneous tasks, such as filling out application

forms, retrieve information on vacancies, typing and emailing applications, purchasing railway tickets, and view passport application status.

MANAGEMENT OF VSeEC

In this section we focus on the management of VSeEC, particularly on the role of the informal ICT-based support network. Formally, the VSeEC staff members report to the manager of UCH, who together with the foundation members of TT, is responsible for decisions affecting the VSeEC, particularly those relating to funding and decisions that can affect relations between UCH and the surrounding villages, the latter being a very sensitive issue.

The lead-author of this paper, who is also the original EWB representative on this project, convenes the informal network, but is no longer representing EWB, as this DD ceased its involvement in the project, consistent with its policy of handing over projects of this nature to local organisations. Although there was no formal hand-over process, it was implied that its original representative would continue supporting the project on an informal basis. The other members of the informal network have at some time volunteered at UCH in different roles and most of them are members of the Indian diaspora, even if they themselves were not born in India.

A key difference between this and other DD projects is the involvement of individuals who are not part of the particular diaspora. An Australian national inspired by the cause that TEWOAF represented entirely funded the construction of the VSeEC and much of its ICT equipment. Further, several other non-diaspora supporters have contributed not only financially but also through social and knowledge transmission.

There is a sub-network of more active people within this wider network. In fact, of the core team that takes the most direct involvement in VSeEC's activities is of non-diaspora origin. The means of communication between members of the network are emails and skype-conferences. Emails tend to be used to reach a larger number of people, e.g., for major decisions and the distribution of major reports, while regular audio skype-meetings are arranged for the smaller, more active group. These meetings tend to follow an agenda, consisting of different activities related to the projects.

Some of the challenges faced in this collaboration include:

- Lacking terms of reference and authority, there is some ambiguity regarding the role and purpose of this network, which has mainly an advisory role.
- As the role and functions of this network of this network is not explicit, this ambiguity can lead to

possible suspicions by local staff of motives of foreign staff especially if they should be viewed as a threat.

- different approaches to reporting. Whereas the external group expects to see regular reports, only sporadic reports are disseminated, making it difficult to understand what is really going on. This is probably a reflection of different priorities.
- scheduling difficulties for skype conferences with different time zones.
- problems with local ICT infrastructure, so even when it has been possible to arrange mutually acceptable times, the Internet connection may be out of order or of insufficient quality. Where skypeout to mobiles in India is used, the quality of the connection makes it difficult to understand.
- mutual difficulties of understanding English accents compound the technical quality problems.

RESEARCH DESIGN

This study is in its very initial exploratory phases of research and is best described as a research in progress. In this section, we describe elements of the research design utilized - its case study methodology, data collection via focus group discussion framed by a semi-structured interview, and data analysis via content analysis of the generated interview transcript.

The Exploratory Nature of the Study

As this study attempts to provide insights into and comprehension of an under-researched situation, and makes no attempt at generalizability, it is best described as exploratory. Babbie (1989), for example, identifies that one of the three purposes of social science research as being exploratory and is often used when problems are in a preliminary stage.

The Case Study Methodology

Given that it is an exploratory research, the case study was chosen as the appropriate research methodology corroborated by Shields, Patricia and Tajalli (2006) who suggest that the case study is often used in exploratory research. A case study is a research methodology common in social science. It is based on an in-depth investigation of a single individual, group, or event – in this study it is the involvement of the DD in the management and operations of an ICT4D initiative - to explore causation in order to find underlying principles (Shepard 2001; Yin 2008) . They provide a systematic way of looking at events, collecting data, analyzing information, and reporting the results. By virtue of a case study being an empirical inquiry that investigates a phenomenon within its real-life context, the researcher may gain a sharpened understanding of why the instance happened as it did, and what might become important to look at more extensively in future research.

Qualitative Data Collection Technique: Focus Group Discussion and the Semi-Structured Interview

The FGD framed around the semi-structured interview was considered the ideal data collection approach to ascertain the views and opinions of local stakeholders as a group about the benefits and drawback of the DD's participation in this project.

Focus Groups

Focus groups allow social science interviewers to study people in a more natural setting than a one-to-one interview. Often, focus groups are used in exploratory research, when little is known about a topic (Basch 1987; Byers 1991; Flores and Alonso 1995). They help researchers gain insights and ideas regarding a relatively unexplored area of experience (Basch 1987; Flores and Alonso 1995; Urban 1990). Focus groups are also useful when a range of opinions around a topic are desired (Basch 1987). The relaxed atmosphere and mutual reinforcement of shared experience allow for rich data to emerge (Flores and Alonso 1995) and they are generally low in cost, one can get results relatively quickly, and they can increase the sample size of a report by talking with several people at once (Marshall 1999).

Semi-structured interview

The semi-structured interview is one of the most frequently used qualitative methods. It starts by trying to minimise the hierarchical situation in order that the subject feels comfortable talking with the interviewer and, ideally, the interviews were more akin to a free-flowing dialogue than a formal interview process. Such informality was intended to minimise any sense of power imbalance between interviewer and interviewee (Ellis & Berger 2003). The process can also include the interviewer disclosing their own knowledge and opinions on the topic, as sharing is seen as a way to build rapport and to promote an interactive experience. An interview script is used, consisting of a set of questions as a starting point to guide the interaction. Nevertheless, as the aim is to capture as much as possible the subject's thinking about a particular topic, the interviewer follows in depth the process of thinking posing new questions after the first answers given by the subject. Consequently, at the end every interview can be different from each other.

The Qualitative Data Analysis Technique: Content Analysis

Content analysis is a simple and popular qualitative method that attempts a systematic description of behavior asking who, what, where, where and how questions. It is also the preferred technique for analyzing semi-structured interviews and cognitive testing interviews. Content analysis is comfortably self-taught and analyses progress quickly. Those are big advantages. While content analysis is considered by many to not be sufficiently rigorous - akin to a good beginning but often not sufficient by itself - it was considered sufficient during the initial stages of this exploratory case study.

DISCUSSION AND ANALYSIS

The semi-structured interview was held with three key project stakeholders, Seshachalam Subramanian, Vijay Kumar, and John Peter, who have been involved either directly or indirectly with the DD group that has been described in an earlier section. Seshachalam Subramanian is the overall manager of UCH, whilst Vijay Kumar is the system administrator of the VSeEC and the one most directly involved with its day-to-day operations including programs implementation. John Peter leads several of the non-technology based community programs and serves as overall community liaison.

Given the exploratory nature of this study, we present empirical evidence in the form of direct quotes from an interview transcript generated by a focus group discussion frameworked around an interview held at the Uluru Children's Home by the lead researcher of this study. It is admitted that evidence in the form of quotes was to do almost exclusively with the first research question with regards the benefits of that Brinkerhoff (2009) suggests that DDs bring to a multi-stakeholder development initiative. However, it is hoped that follow-up interviews will build on this preliminary first interview to build a body of evidence that will help shape answers, beyond the preliminary hypotheses offered below, to questions two through to six.

In detailing answers to question one, however, we begin with evidence that supports the suggestion that DDs present a wealth of information,

We are getting educated also through this process [Seshachalam Subramanian].

When I have a chat with all of you, we get how to make good preparation all the activities and how to make them ourselves [Vijay Kumar].

Connected to the first benefit, evidence also points to the DD's role in providing skills and know-how,

It is really useful. The technical issues. To get a solution is very complicated locally. When we bring the issues to other people, we will get more support for the technical issues [Vijay Kumar].

In regards to the DD's mobilization of networks vis a vis involvement of local professionals and local development partners,

The Digital Literacy program also, we heard from Niranjan. He has found that and he had given us a task to follow up with them and we then had a discussion with Sridhar and we got it. That's how the business contacts help [Seshachalam Subramanian].

Finally, in regards the DD's ability to better understand and adapt to foreign approaches and technology to the homeland context ,

You people are there already, you know what is the latest development. So when you are there, the latest technology you are able to tell us this is the thing that you can follow. That is the advantage we take from you [Seshachalam Subramanian].

You understand what is the problem here. You understand the feasibility also which makes it easier for us [Seshachalam Subramanian].

In answering the second question, we can assume that this collaboration also contributes to building capacity on the ground at the VSeEC, but only those involved there can testify to this. Their participation in this process is not in itself an indication that they benefit from this process, as they may feel obliged to do so. For those involved in the informal network, there would be no imposed pressure to participate, so their motivations and benefits obtained are likely to be related to those applicable to volunteering in general and cyber-volunteering in particular. A study on volunteering by the Australian Bureau of Statistics (2007) identified the main reasons for volunteering as: 'help others/community', 'personal satisfaction', 'personal/family involvement', 'to do something worthwhile' and 'social contact'. Other studies have found that volunteers performing the same activities can have different motivations and that motivation is complex (Musick & Wilson 2008). In her study on cyber-volunteering related to involvement in applied distributed networking, Krebs (2010) ranked solidarity the highest, followed by involvement in a cause. Other motivations included personal reasons, professional experience, networking, learning and knowledge, self-expression, and empowerment.

In terms of disadvantages, there are certain risks associated with these arrangements, e.g., by not being familiar with the nuances on the ground, the external team members may suggest activities that do not make sense, but it may be culturally difficult for the local staff to question such advice. Local staff may consider this external involvement a disempowering intrusion.

What can we learn from this experience? As it is still early days, both for the project and for the remote

collaboration, it would be premature to draw any conclusions on the efficacy of this initiative. It would be necessary to first evaluate the VSeEC in its own right and then to explore the contribution made by the informal team to positive aspects in the evaluation.

This exploration of contributions applies equally to the key role that non-diasporans are able to play in DD initiatives. There is little doubt that non-diasporan individuals such as host country (Australian) nationals such as Vicky Standish, through to host-country based international NGOs such as Engineers Without Borders Australia, have played a significant role in the project's continued funding and operation and whose role in such initiatives should not be underestimated as they are able to bring knowledge and resources to bear that may not be as readily available to the diaspora. How diaspora organisations are able to promote to and involve non-diasporans in DD activities are key points of further study.

The experience described in this paper offers considerable potential benefits. There is a need to research it further, with a view to formulating best practice ideas. Although these would to a large extent be culturally specific and contextualised, if some common well-functioning practices and procedures could be identified, these could be of wide-ranging benefit in this emerging field of collaboration. The development of such practices would require a comparative study of a reasonable number of development projects involving informal networking between projects in developing countries, the DD, and its supporters in developed countries.

How future generations of diaspora are involved in home country development initiatives and interact with ICTs is also open to further research. Further, an important aspect of future research that has been alluded to, but may not have been adequately stressed, is the proposition that the DD's involvement in development initiatives helps minimize environmental impact.

CONCLUSION

This paper has not only attempted to summarize the literature around the background, opportunities, and benefits of the involvement of diasporas in local on-the-ground home country development initiatives leading to the potentially key role of the Digital Diaspora, but it has also developed a special case study involving the Digital Diaspora in a globally dispersed multi-layered partnership model that involves non-diasporans, an international NGO, and local NGOs bound by a common development ethos. It is an unusual mix. It is not only shown that the Digital Diaspora brings to bear support, advice, and resources in local development projects, but also, crucially, leverage ever more powerful ICTs designed for remote collaboration in order to further extend their reach. ICTs play a key implementing role in development

partnerships via informal support networks should the motivation exist. However, as this model of development is not particularly well studied and as it presents its set of challenges, it is hoped that this paper will help shed some light on what works and what does not. It is also hoped that it opens the way for further study on particular research questions, and others like it, raised by this case study. What is clear is that there will continue to be several models of diaspora involvement, some sector-specific, some more general, as diaspora and Digital Diaspora in particular, gain in force and make effective use of advancing ICTs.

REFERENCES