



## Information And Communication Technologies And Relocation

\*Dr. Hetal J. Mehta

\* Principal Swami Sahajanand College of Commerce & Management, Affiliated with M. K. Bhavnagar University

### ABSTRACT

*Surveying existing literature, this paper starts by identifying links between attainments in human development and the presence of ICTs. The research then looks at instances where ICTs affect the opportunity for migration and how they affect its outcomes. We will see how migrants are making use of ICTs and the importance that these technologies have come to occupy in their life. Attempting to illustrate both positive and negative implications of the roles of ICTs in human mobility, this paper surveys research that demonstrates how ICTs are used in both regular and irregular migration, in maintaining family relations, in sustaining cultural identities, and in supporting a family from abroad. We will see that ICTs have not replaced older forms of communication but that they have greatly increased the range of available options for communications. Throughout the text, this paper also includes the roles of governments and civil society in working to increase access and use of ICTs while also making mention of instances where they actively pursue the opposite. As we will see, the skills necessary for use of ICTs and the infrastructure necessary for their access can be found in all countries of the world, albeit in unequal distribution.*

**Keywords : Information and communication technologies, diaspora, migration.**

### 1 Information and Communication Technologies and Relocation:

Information and Communication Technologies (ICTs) have drastically changed the world in which we live. With increased interconnections in financial markets, media, knowledge sharing and archiving, billions of people around the world today are logging on, surfing the web, browsing, and posting information that is accessible irrespective of geographic location or time. Linear patterns of information sharing have effectively been replaced by circular patterns of information gathering. This is the Information Age (Castells, 2000). This transformation does not reach the entire world's population but for instance, in little more than two decades, public use of the Internet has grown from a small network of academics in the United States to include more than 20% of the world population. The region with the largest online community is now Asia and China ranks second in the size of national online communities around the world (ITU, 2009).

Mobile phone subscribers are a much larger group and have passed the 50% mark (ibid). It is

predicted that another billion of the world's population will use ICTs in the next four years (mainly mobile phones) and most of these new subscribers and users will be in developing countries (MIT, 2009). With growing access to ICTs and the current state of mobility of people around the world, it is easy to imagine that there exist relationships between access and sharing of information and the outcomes of migration. As IOM (2005a) states, migration is not only influenced by ICTs, ICTs have become global drivers of migration. Castles (2007: 2) explains this by suggesting that new communication technologies coupled with developments in transportation and cultural change are "making it normal for people to think beyond borders."

Technological innovations and social changes linked to ICTs are validating and reinforcing

human capabilities of rapid information sharing (Castells, 2000). Awareness of proximity between countries and regions through media images and personal experiences of the world

mean that ICTs are in fact "bringing the world closer together" (Pries, 2005: 167). Despite the

current geographical limitations of ICT diffusion, it is the pervasiveness of the changes triggered by their rapid spread that marks the new age.

Surveying existing literature, this paper starts by identifying links between attainments in human development and the presence of ICTs. The research then looks at instances where ICTs affect the opportunity for migration and how they affect its outcomes. We will see how migrants are making use of ICTs and the importance that these technologies have come to occupy in their life. Attempting to illustrate both positive and negative implications of the roles of ICTs in human mobility, this paper surveys research that demonstrates how ICTs are used in both regular and irregular migration, in maintaining family relations, in sustaining cultural identities, and in supporting a family from abroad. We will see that ICTs have not replaced older forms of communication but that they have greatly increased the range of available options for communications. Throughout the text, this paper also includes the roles of governments and civil society in working to increase access and use of ICTs while also making mention of instances where they actively pursue the opposite. As we will see, the skills necessary for use of ICTs and the infrastructure necessary for their access can be found in all countries of the world, albeit in unequal distribution. It is common to state that ICTs have facilitated the advent of globalization (Castells, 2000). Now we see that they have also changed the context of migration around the world (Karim, 2003).

### 2 The Information Age: Some theoretical foundations

Brought about by the development of ICTs, the world is going through a major shift. The Information Age, otherwise referred to as the network society, is a contemporary meta-narrative that guides many studies in all fields of the social sciences. As a theoretical space within which to conduct contemporary research, the Information Age suggests we are moving beyond the Industrial Age and into an era where the sharing of knowledge and ideas is the new driver of power and the world economy. Castells (2000) demonstrates the economic reper-

cussions of the network society and the ways it binds national economies throughout the world. Whether one discusses the emergence of global financial systems or growing citizen solidarity networks, one thing remains common and is at the core of the new society, the solicitation and exchange of the world's most valuable resource: information. Defined as the "new social morphology of our society" (ibid: 501), networking logic is both a structure and a process that enables the exchange, the redirection, and the reception of information, on a global scale, without restraints of space or time. When one is part of these new networks, distance is in fact rendered irrelevant, allowing direct, simultaneous, decentralized, and expanding relations of collaboration, advocacy, trade, production, and innovation, generating new forms of power constellation and distribution. This is the dominant organizational form of the Information Age, one that has displaced centres of power and influence into the space of flows (meaning the channels by which digital information is shared), beyond the control of any yet accessible to all. The space of flows represents the new "material organization of time-sharing practices" and greatly impacts our daily lives, both materially and symbolically (ibid: 442).

As tools that allow immense exchanges of information, ICTs impact many realms. The use of Internet in the quest to promote and defend human rights, international law, and democratic governance, is well documented and is perhaps the strongest asset for civil society struggles

around the world today and one of the most positive examples of the space of flows. Civil society groups and in particular transnational advocacy networks, including diaspora communities, have been some of the most active users of ICTs such as the Internet for information sharing, mobilization and social change (Norris, 2001). Civil society groups who are present online are powerful actors and facilitators that promote interaction, deliberation, and the sharing of information, effectively expanding the concept of public sphere (Bohman, 2004), and creating what Norris (2001) refers to as communities of choice, in contrast to the traditional communities of places that we all know and experience.

ICTs are being developed and used around the world in a way that is blurring, through networked processes and structures, the distinction between here and there, in and out. Expressed both locally and internationally through ICTs, people's sense of self are increasingly generating a shared sense of experience, beyond the confines of geographic space. Intercontinental networks of migrants have truly given birth to new forms of media that are unique to the Information Age and allow the birth of global cultures that link people through ideas and identity (Appadurai, 1996). Through ICTs, we are experiencing increased exposure to external influences which have deep impacts on our culture and identity (Greig, 2002: 236). The links between these elements is fundamental to the study of the network society and the uses of Internet (Castells, 2004).

We can now experience what Castells (2000) refers to as timeless time: the capacity to function in real-time across the world without delay and at our convenience, with blurred distinction between physical and digital experiences. The Information Age also affects us through its media and images, which alter our lives, communities, nations and states, and have tremendous impacts on our identities and our imagination (Appadurai, 1996). Cultural flows are travelling in all directions, to and from both developed and developing countries. Because of the digital divide, the use and benefits of ICTs are a reality and a strategy that still remain out of the reach of many people in the world (Shields, 2003), but we can imagine that few are truly sheltered from the impacts of ICTs. The communications that occur through these channels do spread beyond their initial medium through other means and therefore tend to reach much wider audiences. As described by Lim (2003) the contents of online communications have the ability of travelling between the physical and virtual

worlds, and back again, both in developed and developing countries.

### 3 Human Development and the Digital Divide

Studies of the digital divide keep us aware that access and use of ICTs are unequally distributed both across geographic areas and within communities. The digital divide is the disparity that exists in access to ICTs between, for example, countries or regions, communities, ethnicities, the sexes, or age groups. It can manifest itself internationally and within communities and is shaped by the "economic, political, and sociological context in which it occurs" (Guillén and Suárez, 2005: 683). The digital divide is especially relevant to those who value and advocate the fundamental role of ICTs today. Research shows that access to ICTs such as the Internet and mobile phones is most common amongst the high-income countries and even more so amongst young urban segments of those populations (Roberts, 2008). Interesting parallels can be made by coupling the country classification contained in the 2009 ICT Development Index (IDI) compiled by the International Telecommunications Union (ITU) to the Human Development Index (HDI).

This juxtaposition illustrates the geographic distribution of access and use of ICTs and the link that can be made with attainments in human development. For example, all the countries ranked high in the IDI are also ranked high in the HDI, and more specifically, are located in the top quarter of the HDI in what can be termed the very high HD group (0.9 and above). All the countries ranked low in the IDI are in parallel ranked medium-low or low in terms of human development. The low IDI ranks represent exclusively countries located in the bottom third of the HDI (ITU, 2009, and UNDP, 2008). Looking at ICT indicators from the ITU World Telecommunications/ICT database (WTI) for the year 2007, allows us to see with even more clarity the digital divide that exists between countries. For example, in the highest ranked countries of the HDI (the very high group), Internet users represent an average of 61.4% of the population whereas they represent an average of 1.8% for the 24 countries that are classified as low human development (ITU, 2009 and UNDP, 2008). Telephone subscribers for these same countries with high human development hover at 157.5% of the population (telephones are so prevalent in these countries that it is common for individuals to have more than one line). This figure again creates a sharp contrast when juxtaposed to the average of 15% for those countries with low human development (ibid). With such disparities, we can expect that average knowledge and skills relating to ICTs will be far less in a significant segment of the population in countries of low human development as compared to those at the top of the HDI. Low financial resources and high illiteracy are commonalities between all countries with low human development and these are the types of obstacles that will severely affect spread and benefits of ICTs. Norris (2001) concludes that economic dimensions and wealth are the most impactful dimensions that determine the digital divide between countries.

When discussing the relationships and impacts of human development, migration, and ICTs,

we therefore need to be very cognisant of the disparities and inequalities on access and use that exist between groups and amongst countries because these have serious implications on many migrants' access to ICTs and their ability to use these tools; as they do for their families and friends that reside in their country of origin. These considerations are especially relevant in the discussion of international migration since the level of development of both origin and

destination countries will have significant implications on the availability and use of ICTs.

### 4 ICTs and Opportunities for Relocation

The act of migration begins in the mind. Global media and their representations of foreign lands through news, adver-

tisement, film and entertainment, are amongst the important sources of information available to people who are considering migration (Wood and King, 2001). The media deliver images concerning host countries, which in the case of the developed countries may include stereotypes of prosperity, comfort, wealth and opportunity and for the developing countries, poverty, instability, and a much idolised paradise. ICTs supplement the traditional channels of information such as word of mouth, locally advertised work opportunities and the shared experiences of family and friends who have themselves migrated. For better or for worse, these images can have tremendous impacts on the final decision to migrate and the destination chosen (ibid), especially in those for whom migration is already an option (Hargreaves and Mahdjoub, 2006). As detailed in an interview conducted by Schapendonk and Moppes (2007), a Senegalese migrant confirms this notion by stating that European images of beauty, wealth, and luxury, are predominant in the media. This fuels the interest of young males towards migration.

Norway, the UK, and Spain are examples of countries where 'labour market tests' for ICT workers have been suspended or diminished to maximize the entry of such professionals into

their economy (IOM, 2008). The United States and Germany are other examples where restrictions have been lowered specifically for this group (Solimano, 2006). In the case of the

United States, reform of immigration policy was spearheaded by the private sector through companies such as Microsoft, Texas Instruments, and Sun Micro Systems. Combined, they successfully lobbied the American government in order to have access to the growing pool of IT talent found abroad (Ros et al, 2006), an important change in immigration policy given the fact that throughout the 1990s, three quarters of all ICT production was in developed countries (Arocena and Senker, 2003). Although research demonstrates the negative impacts that migration can have on a country (brain drain) which in many ways can diminish or slow down their development outcomes (Solimano, 2006), IT professionals have also been at the forefront of ICT development in developing countries. Research demonstrates that strong links exist between the international mobility of IT experts originating from developing countries and their investment in this sector at home. Examples from China and India abound that show strong links between a home grown ICT sector that has benefited from the work and networks of their nationals abroad. India's modern image as a hub for IT and computer programming is largely due to the success of its diaspora and the resulting networks that were created through these movements of highly skilled workers (Kapur, 2001). Their success and experience is in many instances the reassurance that foreign capital needs to invest and conduct business in developing countries. This can best be described as a "two-way flow of skill, capital, and technology between differently specialized regional economies" (Saxenian, 2006: 21).

In IT sectors, it is not enough to talk of Silicon Valley. We have to take into account Bangalore and Shanghai (amongst others) as the many centres of technological innovation around the world today. In this sense, we can look at the migration of highly skilled workers as the creation of "brain banks" where a country's human capital is calculated by its share of skilled workers abroad. Solimano (2006: 2) suggests that brain banks are a significant resource for many countries including "India, China, Russia, Ukraine, Belarus, Hungary, and Poland" and that highly skilled citizens working in the domain of IT abroad is in many instances beneficial to the country of origin in stimulating networks and initiatives back home. Looking again at the example of India, successful IT professionals living as diaspora are responsible for the creation of IndUS Entrepreneur (TIE). This organization has for its goal the expansion of Indian influence and importance within fields of IT. Initially a link between India and the United States, this network is now active in several countries around the world and attracts venture capital to invest in IT projects in India

(Kapur, 2001). As is evident by the fact that in 2005, 19 of the 20 top IT firms in India were either managed or had been founded by members of the Indian diaspora (IOM, 2005b), experience abroad can be highly beneficial.

These are examples of brain circulation that can greatly benefit developing countries where the right conditions for investment exist. As Saxenian (2006) rightly highlights, not all countries are positioned to benefit from this exchange. Governments that discourage foreign investment, states that experience political and financial instability, or states where there is little support for infrastructure development, do not lure these types of synergies between centres of innovation. This is how the author explains the void that exists between Iranian and Vietnamese IT experts in Silicon Valley and their countries of origin. A large part of the synergy that can exist between centres of innovation is dependent on the reasons for migration and the conditions back home.

Whether one migrates with the support of their state or if one migrates as a refugee will have direct consequences on these ties and the potential for co-development, as defined by Naïr (1997). The same is true of Russia, several countries of Eastern Europe and Latin America where financial resources and the economic climate hinders the establishment of strong networks of technological development linked to other centres of innovation, as was the case in China until recent years. Of course, these facts are constantly and quickly changing (ibid). As part of the World Summit on the Information Society (WSIS) a working group has designed a strategy for reducing the digital divide through diaspora networks. The cornerstone of the project is the Digital Diaspora Network for the Caribbean (DDN-C). Equivalent networks were designed for Africa (DDN-A) and Latin America (DDN-LA). The projects intend to "provide a rich source of ideas, skills and support and to act as a platform for the exchange of information" (Nurse, 2003: 4). A private online network that is targeting the least connected segment of the global community is MIRAUI (Mouvement international pour la renaissance d'une Afrique unie).

#### 7 ICTs and Cultural Identities:

Migration offers a unique opportunity to reinvent oneself. As Rouse (1995:356) wrote, migration involves "asserting and organising around either revalorized versions of ascribed identities or new ones that the (im)migrants develop for themselves." In this sense, the impacts of migration and ICTs can therefore be understood as promoting a certain Westernization of source countries and a creolization of host countries, effectively impacting the dominant culture and facilitating cultural diversity within many societies (Shibanai, Yasuno, and Ishiguro, 2001, and Greig, 2002). This process is not new. Diffusionist theories have existed in the social sciences since the early 20th century through the work of Alfred L. Kroeber. The interesting contemporary debate lies in the final outcome of increased communications on a global scale.

#### 8 Technologically Mediated Relations:

The use of ICTs entails the acquisition of skills and resources. It follows that for different families and for various cultural, social, political, or economic reasons, some ICTs are "more

desirable than others at specific points in time" (Wilding, 2006: 15). The concept itself of family is quite diverse when compared cross-culturally. The patterns of communication between family members also change over time and depending on the context that family members find themselves in. These relations are greatly impacted upon by technology the moment a member of the group migrates. Research done on the choice of medium of communication used by migrants demonstrates that prior to the 1990s letter-writing was considered the most dependable and cost efficient means to contact family members abroad (ibid). International telephone calls were also used, but since they were done, as in the case of Jamaica, from kiosks and public phones, they offered very little privacy (Horst, 2006). As many studies on the topic of ICT and migration demonstrate, this is no longer the case.

### 9 Diaspora Communities and the News:

Contrary to the historical flow of media from agencies in developed countries, which promoted a certain hegemonic world view in the press, ICTs, such as satellite television, have opened channels of information that originate from developing countries (Karim, 2003). Senegal's WorldSpace system is a great example of a developing country's effort to generate content geared for its diaspora and migrant community. Launched in 2006, the service was designed firstly to broadcast abroad and only later was made available within Senegal (Ros et al, 2006). Accessibility to news originating from one's country of origin can be very important in maintaining a sense of connection and involvement with events back home (Benítez, 2006).

Satellite channels also offer migrant experiences in developed countries to be distributed in developing countries, such as Telemundo in the United States where the images and viewpoints often defer from other major American networks. In the case of Telemundo, the audience, largely immigrant based, determines the content and angle of the media reporting (Karim, 2003). The same effect can be found in alternate mediums. It is often expressed that ICTs such as the Internet has the potential of bypassing the traditional interests of media enterprises (Clark, 2003), which have been demonstrated to be highly influenced by dominant sources of economic and political power and which have predefined audiences and market objectives (Shoemaker and Reese, 1996). Referring to an interview with a director of Radio América, an online radio station that caters to the Latino community in the United States but regularly receives emails from migrant listeners in all corners of the world, Benítez (2006) demonstrates that online audiences are much broader than with traditional broadcast mediums and can service the entire globe.

### 10 Changing the Context of Migration around the World:

There is very little evidence that ICTs promote migration on a large scale or that they influence people's decision to migrate but there are many case studies that show how ICTs can be used to influence people's opinion and experience of migration. A phone call from a relative who has successfully reached Europe or a media report showing the good life abroad often fuel the desire to migrate (Schapendonk and Moppes, 2007). With every new communication technology invented, what we are seeing is an increase in the range of options migrants have to communicate with their families and friends abroad and an increase in the frequency of those interactions. This has been demonstrated to help migrants deal with shocks by making it easier to request assistance from relatives and friends that are abroad. This author feels strongly that ICTs are in a sense becoming technological social safety nets and resources that can be tapped in times of need. This may be especially true for migrants as services offered through ICTs, such as mobile money transfers, become ever more common across the world. ICTs are impacting the lives and even the culture of migrants in significant ways and that they are facilitating large quantities of communication between friends and relatives divided by geographical distances (Ros et al, 2006). ICTs can be personal or communal and are used to maintain contacts with friends and family members abroad. Some research also shows that ICTs are bringing down the costs associated with migration. The field of IT itself may be a gateway for migration for many high-skilled workers, but ICTs are not enabling the creation of cultures, identities, or families where none existed (Wilding, 2006). ICTs are assisting migrants to maintain their cultural identities, albeit in changing forms. ICTs create a sense of connection and serve as connection. Therefore, seeing the movement of people as a force of Westernization does not do justice to the cross-cultural impacts and hybridization effects that contact and channels of communication have on cultures around the world.

The study of diaspora and ICTs does show "new forms of integration or social exclusion

between migrants and their relation to social and political networks in their home country"

(Benítez, 2006: 185). Through digital media, groups of people, both diaspora and minorities, can in fact take control of the images and information that represents them (Ros et al, 2006). ICTs have also enabled the emergence of long distance 'real-time decision-making' and are changing social relations of power through shifting social roles as determined by access to technology and information (Mansour Tall, 2004). As the example of Eritrea demonstrates, this is a viable alternative in the context of citizens living abroad and may become an important component of e-governance. ICTs in this example are an important tool for the national community, making the Internet the "quintessential diasporic medium, ideally suited to allowing migrants in diverse locations to connect, share information and analyses, and coordinate their activities" (Bernal, 2006: 175). But, as the online community continues to grow and is increasingly important to migrants, the digital divide becomes ever more prominent for those who are not part of these networks since technologies such as the Internet may be their only channel of communication in which to share their experiences as migrants with a network or community that will understand and support them (Mitra, 2001).

An important consideration for governments is therefore the need to support and enable these exchanges while creating "an environment conducive to economic development, with political stability and sound economic policies", so that the diaspora will value investing at home as is the case in India and Korea (UNDP, 2001:93), and as we have seen in China. Research demonstrates the benefits that can be stimulated when governments nurture communication with the diaspora and facilitate their return and capabilities for investment at home. A significant component of this aspect is the maintenance or establishment of trust between governments and their citizens living abroad (Saxenian, 2006). As the wealth of literature concerning the digital divide attests, ICTs have a positive impact on development in those settings that meet the basic requirements of: "clean and consistent power, a robust, accessible and affordable connectivity network, technical literacy, skilled users and support systems, functional markets, and supportive regulatory and policy framework" (Kramer et al, 2007: 8). Governments can also support the use of ICTs by targeting disadvantaged groups and creating points of access coupled to literacy and ICT training. Authorities in Hong Kong were very successful in collaborating with NGOs and establishing a wide range of initiatives and projects that addressed the digital divide in their territory to significantly increase ICT use (Fung, 2006). The government of California in the United States also pursued this strategy and established a network of immigrant run community technology centres which are structured to answer the needs and concerns of individual migrant communities. By combining computer and Internet skills to cultural and community services, these centres are allowing immigrants to learn in a safe and practical environment that takes into account their linguistic skills and particular cultural needs (Fairlie et al, 2006).

Therefore, the future of ICTs and their impact on migrants may not be the development of increasingly sophisticated and new technologies. It may simply be the continued penetration of existing technologies into communities around the world in ever more remote and distant regions, so far unreached by the relay towers and satellites that make digital communication

possible (Panagakos and Horst, 2006). This conclusion is supported by the fact that the ten telecommunications markets to have shown the highest rate of growth between 2000 and

are exclusively in developing countries<sup>9</sup> (TeleGeography, 2006). This of course requires a multistakeholder approach that involves not only the government and civil society but also the private sector, which is the main investor in ICTs around the world (Castells, 2000). In 2004, 50% of the world's countries were still bound by monopolies on Internet connectivity,

This figure represents both state run and private enterprises. This tends to translate into higher than necessary costs of ICT use, especially in developing countries where markets are smaller and more expensive to service (ITU, 2006). The opening-up of telecommunications markets to competition will continue to have positive impacts on the costs of access and use of ICTs (Sierra, 2005). Research from the Pacific, Africa, and Latin America all demonstrate that competition in the telecommunications industry is vital to reducing costs and increasing the spread of Internet and mobile communications (Commonwealth of Australia, 2008, GTB, 2007, TMG, 2008, and Wallsten, 2001). Government policies that regulate and promote investment in the telecommunications sector consequently translate in most contexts as facilitators of growth in ICT diffusion and more specifically Internet use (Guillén and Suárez, 2005).

Looking at migration data coupled to telecommunications flows, conclusions presented in this paper are further reinforced. Research for the World Bank calculates that amongst the ten

most significant migration corridors around the world we find those of Turkey-Germany and

India-United Arab Emirates (Ratha, 2008). What is interesting to note, and may not be completely due to migration but is nevertheless revealing, is the fact that Turkey's largest flow of telecommunications data (measured in the quantity of tel-

ephone calls in minutes) is to Germany and both India's and the United Arab Emirates largest data flows are between each other (TeleGeography, 2006). When we look at the spread of mobile communications, it took the world 15 years to reach 25% of the global population, of which the vast majority were in developed countries. It took another 4 years to reach 50% and it is believed that the vast majority of the next 25% will be found in developing countries between now and 2011. 60%, or roughly 600 million of the new users, will be in rural areas (West, 2008). As it is increasingly advocated in business schools and the private sector, the base of the pyramid is the future of technological market growth (Kramer et al, 2007). This is a fundamental area where governments can assist ICT users in developing countries, and therefore also benefit migrants and their families. These countries are: Bolivia, Ecuador, El Salvador, India, Kuwait, Nigeria, Pakistan, Senegal, United Arab Emirates, and Venezuela (TeleGeography, 2006). Investment coupled with the right policies on ICT infrastructure and service delivery will not only be beneficial to the future of ICT use and its role in development, it is the key to its success and an important element of migration.

## REFERENCES

- Ackland R, and Gray E. 2005. What can potential migrants find out about Australia from the | WWW? *People and Place* 13 (4): 12-23. | Allison R.A, and Foster J.E. 2004. Measuring health inequality using qualitative data. *Journal of Health Economics* 23 (3): 505-524. | Appadurai A. 1996. *Modernity at Large: Cultural Dimensions of Globalization*. Minneapolis: | University of Minnesota Press. | Arocena R, and Senker P. 2003. *Technology, Inequality, and Underdevelopment: The Case of Latin America*. Science, Technology, & Human Values 28 (1): 15-33. | Bennett WL. 2004. "Communicating Global Activism: Strengths and Vulnerabilities of | Bohman J. 2004. "Expanding Dialogue: The Internet, Public Sphere, and Transnational Democracy" in PM Shane (ed). *Democracy Online: The Prospects for Political Renewal* | Through Internet. New York and London: Routledge. | Castells M. 2000. *The rise of the network society*. Malden and Oxford: Blackwell Publishing. | Chandrasekhar CP. 2001. *ICT in a Developing Country Context: An Indian Case Study*. New York: United Nations Development Programme. | Fung JYC. 2006. *The Digital Divide and the role of NGOs in empowerment of disadvantaged | groups via ICT in Hong Kong*. Bangkok: UNDP Asia-Pacific Development Information Programme. | Ghosh B. 2006. *Migrants' Remittances and Development: Myths, Rhetoric and Realities*. Den | Haag: IOM and The Hague Process on Refugees and Migration. | Graham M, and S Khosravi. 2002. *Reordering Public and Private in Iranian Cyberspace: | Identity, Politics, and Mobilization*. *Identities: Global Studies in Culture and Power*. 9: 219-246. | Greig JM. 2002. *The End of Geography?: Globalization, Communications, and Culture in the | Interantional System*. *Journal of Conflict Resolution* 45 (2): 225-243. | Hamelink CJ. 1983. *Cultural Autonomy in Global Communications*. New York: Longman. | Hanafi S. 2006. Réseaux de la communauté, palestinienne d'Europe et impact des nouvelles | technologies. Retrieved from <http://www.ticm.msh-paris.fr>. | Haq M. 1995. *Reflections on Human Development*. Oxford: Oxford University Press. | Hargreaves AG, and D Mahdjoub. 2006. *Satellite television viewing among ethnic minorities in France*. *European Journal of Communication*. 12 (4): 459-477. | Hoffman E. 1991. *Lost in Translation: Life in a new language*. London: Minerva. | Horst H. 2006. *The Blessings and Burdens of Communication: Cell Phones in Jamaica* | *Transnational Social Fields*. *Global Networks* 6 (2): 143-159. | Jenkins B. 2008. *Developing Mobile Money Ecosystems*. Washington, DC: International | Finance Corporation and Harvard Kennedy School. | Karim KH. 2003. *The Media of Diaspora*. London and New York: Routledge. | Kluzer S, Hache A, and Codagnone C. 2008. *Overview of Digital Support Initiatives for/by | Immigrants and Ethnic Minorities in the EU27*. Luxembourg: Office for Official Publications of the European Communities. | Kramer WJ, Jenkins B, and Katz RS. 2007. *The Role of the Information and Communications Technology Sector in Expanding Economic Opportunity*. Cambridge, MA: Kennedy School of Government, Harvard University. | Kroeber AL. 1940. *Stimulus Diffusion*. *American Anthropologist* 42 (1): 1-20. | Kunreuther L. 2006. *Technologies of the Voice: FM Radio, Telephone, and the Nepali Diaspora in Kathmandu*. *Cultural Anthropology* 21 (3): 323-353. | Lebert J. 2003. "Wiring Human Rights Activism: Amnesty International and the Challenges of Information and Communication Technologies" in M McCaughey and MD Ayers (eds). | *Cyberactivism: Online Activism in Theory and Practice*. London and New York: Routledge. | Lee JW. 2001. *Education for Technology Readiness: Prospects for Developing Countries*. | Nederveen Pieterse J. 1995. *Hybridity, So What?: The Anti-hybridity Backlash and the Riddles of Recognition*. *Theory, Culture & Society*. 18 (2-3): 219-245. | Norris P. 2001. *Civic Engagement, Information Poverty, and the Internet Worldwide*. | Cambridge: Cambridge University Press. | Panagakos AN, and Horst HA. 2006. *Return to Cyberia: technology and the social worlds of | transnational migrants*. *Global Networks* 6 (2): 109-124. | Phuntsho R. 2001. *Mass Media: Its Consumption and Impact on Residents of Thimphu and Rural Areas*. *The Journal of Bhutan Studies* 3 (1): 172-198. | Portes A. 1999. "Immigration Theory for a New Century: Some Problems and Opportunities." In Hirschman C, P. Kasinitz, and J. DeWind (eds). *The Handbook of International Migration: The American Experience*. New York: Russell Sage Foundation. | Rodgers J. 2003. *Spatializing International Politics*. New York: Routledge. | Ros A, Gonzalez E, Marin A, and Sow P. 2007. *Migration and information flows: A new lens for the study of contemporary international migration*. Barcelona: Internet Interdisciplinary | Institute. | Rousse R. 1995. *Questions of Identity: Personhood and collectivity in transnational migration to the United States*. *Critique of Anthropology* 15 (4): 351-380. | Saxenian A. 2006. *International Mobility of Engineers and the Rise of Entrepreneurship in the Periphery*. Helsinki: United Nations University, World Institute for Development Economics Research. | Soker Z. 2005. *Age, gender, ethnicity and the digital divide: University students' use of web | based instruction*. Athabasca: *Electronic Journal of Sociology*. Retrieved from <http://www.sociology.org>. | Solimano A. 2006. *The international mobility of talent and its impact on global development*. | Discussion Paper No 2006/08. Geneva: UNU-WIDER. | Statistics Canada. 2008. *Canadian Internet Use Survey*. Retrieved from <http://www.statcan.gc.ca>. | Wall MA. 2003. "Social Movements and the Net: Activist Journalism Goes Digital" in K | Kawamoto (ed). *Digital Journalism: Emerging Media and the Changing Horizons of Journalism*. Toronto: Rowman & Littlefield Publishers Inc. | Wallsten SJ. 2001. *An Econometric Analysis of Telecom Competition, Privatization, and | Regulation in Africa and Latin America*. *Journal of Industrial Economics* 49 (1): 1-19. | Wilding R. 2006. "Virtual" intimacies? Families communicating across transnational contexts. | *Global Networks* 6 (2): 125-142. | Wilhelm AG. 2000. *Democracy in the Digital Age: Challenges to Political Life in Cyberspace*. London and New York: Routledge. | Wood N, and R King. 2001. "Media and Migration: An overview" in King R and N Wood (eds). *Media and Migration*. London and New York: Routledge. |