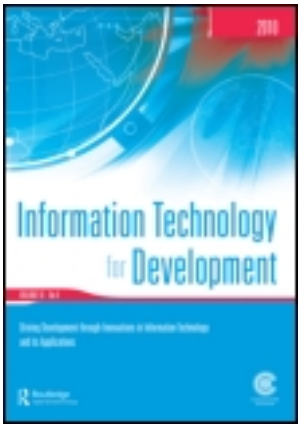

Information Technology for Development

Publication details, including instructions for authors and subscription information:
http://www.tandfonline.com/loi/titd20

Discovering development from information technologies: does open access to technology improve the lives of people?

Sajda Qureshi

Version of record first published: 29 Jun 2012.

To cite this article: Sajda Qureshi (2012): Discovering development from information technologies: does open access to technology improve the lives of people?, Information Technology for Development, 18:3, 181-184

To link to this article: http://dx.doi.org/10.1080/02681102.2012.702858

Information Technology for Development
Vol. 18, No. 3, July 2012, 181–184

EDITORIAL

Discovering development from information technologies: does open access to technology improve the lives of people?

Sajda Qureshi
Editor-in-Chief

One of the most compelling problems facing society is how to understand the effects of Information Technology and that illusive "Communication" technology in the more contemporary term Information and Communication Technologies (ICT) on the lives of people – especially those living in marginalized circumstances. The ability to communicate through the use of information technologies has enabled access to skill, expertise and knowledge by people who are able to use these resources to improve their lives. This ability is also manifest in technologies, such as cell phones and internet chat rooms that allow innovative uses of the technology to bring about measureable improvements in the lives of people. Discovering these improvements in the lives of people who use these technologies to come out of poverty or deprivations, is the subject of the study of how Information Technology may enable Development. The effects of ICTs on Development can be studied to assess how economic growth, namely income generation and job creation may take place; how social development outcomes, such as the effects of technology on healthcare, government and education may be improved; and how human development outcomes of empowerment, participation in civic life and the achievement of individual freedoms may be enabled through access and use of information technology. These are just some of the many ways in which ICTs have been shown to bring about improvements in the lives of people. Researchers in the Information Technology for Development field have shown that there is a link between the adoption of ICTs by people in a region and an increase in incomes of people in that region (Baliamoune-Lutz, 2003; Bollou and Ngwenyama, 2008; Cecchini and Scott, 2003; Kottemann and Boyer-Wright, 2009; Kosempel, 2007).

When appropriately implemented to suit local conditions and cultural sensitivities, ICTs can be successful in supporting development efforts. Recent examples of successful ICT adoption by farmers using cell phones to access better markets for their produce illustrate such successes. There is even a trend suggesting that Open Development is enabled by providing free access to ICTs. However, there appears to be little support for the replication of such efforts. Giving all marginalized people cell phones does not guarantee that they will be able to improve their lives using the technology. Giving people open and free access to the internet may not necessarily lead to improvements in their lives. While adoption of technology can lead to improvements in the lives of people, it appears that this alone cannot bring about improvements. Successful adoption of technology is often coupled with innovations, such as payment systems (MPesa), information literacy, and a host of social and economic factors (Pick and Azari 2008; Avgerou, 2008). Yet, little is known as to how this link between the adoption of ICTs and Development actually takes place. Some researchers suggest that the link between ICTs and growth is mediated by factors such as education, skill and openness of an economy (Kottemann and Boyer-Wright, 2009), while others suggest that government programs and interventions are a catalyst for such growth (Baliamoune-Lutz, 2003; Duncombe and Heeks, 2003;

ISSN 0268-1102 print/ISSN 1554-0170 online

http://dx.doi.org/10.1080/02681102.2012.702858
http://www.tandfonline.com

Ngwenyama and Morawczynski, 2009). Given that research on these links is not conclusive, it is often difficult for researchers, practitioners and policy makers to determine how to achieve development outcomes through ICT interventions and investments.

The papers in this issue take a step forward in discovering the ways in which ICTs enable development outcomes to be arrived at. In particular, they highlight an important effect of technology in enabling access to information that could be used to increase productivity. For example, telecenters have been touted as one of the most important ways in which free or low cost access to ICTs can enable people to lead better lives. However, the espoused benefits do not always some through. In order to understand this phenomenon, the first paper in this issue draws upon established theories of Information technology adoption, diffusion and channel choice to assess specific development outcomes. In doing so, their contributions enable further investigation into those factors that can enable information technology adoption to bring about improvements in the lives of people.

The first paper in this issue entitled "Using technology to alleviate poverty: use and acceptance of telecenters in rural India" is authored by Kamala Gollakota, James Pick and P. Sathyapriya. While telecenters appear to be an important component of development efforts, the low usage of these suggests that these benefits might not be as prevalent as expected. The authors investigate low usage of telecenters in rural India using a framework that builds on prominent IT acceptance theories with four dimensions: (a) perceived outcomes, (b) perceived effort, (c) social influence, and (d) facilitating factors. This framework was tested using data collected from two groups of farmers, ICT users and non-ICT users from who had access to telecenters and a portal with information needed by the farmers. Through an exploratory factor analysis, the authors found that telecenters are an important means of enabling farmers who use ICT to access information on market prices of their produce, cultivation techniques and information on other agricultural factors.

The second paper in this issue is entitled "Navigating the Currents of Change: Technology, Inclusion, and Access for People with Disabilities in the Pacific" and is co-authored by Katherine Ratliffe, Kavita Rao, James Skouge and Joakim Peter. Using a multiple case study design, the authors describe lessons learned from providing information and communication technologies (ICTs) to individuals with disabilities in the US-affiliated Pacific Islands. The cases in this paper highlight a common theme in the underserved communities of countries in which disparities are increasing: that of managing disabilities. The cases in this paper include descriptions of the processes underlying the adoption of assistive technologies and ICT in under-resourced settings and consider culturally relevant ways to introduce ICT-related initiatives for indigenous Pacific Islanders. The paper highlights themes of collaboration, access, and procurement, and the iterative process of providing assistive technology. The authors discuss the ways in which ICTs can be used to empower individuals with disabilities, create conditions for self-advocacy and inclusion, and counter negative perceptions of disability.

The third paper in this issue is entitled "Channel choice and the digital divide in e-government: the case of Egypt", and authored by Christopher Reddick, Hisham Abdelsalam and Hatem Elkadi. The authors state that access to public services is not just a technological issue, social and economic channels such as the phone and in-person visits to a government office. They suggest that citizens have access to a variety of service delivery channels when they initiate contact with their government, ranging from e-government to more traditional forces come to play as well. They examine the extent of use of both contact channels for citizens and the impact of the digital divide on channel use. A public opinion survey of Egyptian citizens was analyzed, and the results showed that there was a digital divide in the use of e-government by citizens. The digital divide also extended to other contact channels such as the phone and when citizens used multiple contact channels for public service delivery. They found that

technology adoption is related to human development. The results of their study imply that for the development of e-government, especially in the context of a developing country such as Egypt, policy-makers need to understand that e-government is one of many channels that citizens can use when they initiate contact with their government. The authors encourage policy-makers to recognize the importance of public service delivery in a multichannel environment.

Kweku Ewusi-Mensah is the author of the forth paper entitled "Problems of information technology diffusion in sub-Saharan Africa: the case of Ghana." He states that information technology diffusion is credited with a significant increase in economic development in many parts of the world except, perhaps, sub-Saharan Africa. His paper discusses the problems associated with information technology (IT) diffusion in sub-Saharan Africa, ranging from unstable and erratic power supply and unreliable telecommunications to inadequate computing resources, and most significantly, to the lack of human and financial resources to tackle the challenges. Empirical data obtained through a survey questionnaire administered to IT managers in public and private businesses are analyzed to illustrate the extent of the problems in Ghana. These problems relate to the infrastructure, hardware and software penetration and the availability of human resources. The author recommends strategies for supporting economic development through the provision of reliable electrical and telecommunication infrastructures, and an IT-literate workforce through an education policy to produce the skills and innovations needed by industry.

The paper in this issue's "View from Practice" section addresses an important need in enabling information technologies to be effectively harnessed. Entitled "A PhD in information systems for emerging economies: the Addis Ababa University model" it is authored by Solomon Negash, Salehu Anteneh and Richard Watson, who identify an important challenge: Information systems (IS) provide a critical skill set for all economies, yet many of the emerging economies find that when they send the best minds overseas for a Ph.D. in IS, many of them do not return. As a result, many poor countries are unable to create the intellectual infrastructure that they need to improve their internal efficiency and participate in the world outsourcing market. Addis Ababa University in Ethiopia has developed a Ph.D. in IS based on the willingness of overseas IS faculty to conduct intensive Ph.D. seminars on a yearly basis. Now in its third year, the program is a model that other countries or regions might consider emulating. This would not only provide the University with the ability to train IS professionals, enable context specific innovations and also mitigate some of debilitating effects of brain drain to high income countries.

References

Avgerou, C. (2008). Information systems in developing countries: a critical research review. *Journal of Information Technology*, *23*(3), 133–146.

Baliamoune-Lutz, M. (2003). An analysis of the determinants and effects of ICT diffusion in developing countries. *Information Technology for Development*, *10*(3), 151–169. doi: 10.1002/itdj.1590100303.

Bollou, F., & Ngwenyama, O. (2008). Are ICT investments paying off in Africa? An analysis of total factor productivity in six West African countries from 1995 to 2002. *Information Technology for Development*, *14*(4), 294–307. doi: 10.1002/itdj.20089.

Cecchini, S., & Scott, C. (2003). Can information and communications technology applications contribute to poverty reduction? Lessons from rural India. *Information Technology for Development*, *10*(2), 73–85. doi: 10.1002/itdj.1590100203.

Duncombe, R., & Heeks, R. (2003). An information systems perspective on ethical trade and self-regulation. *Information Technology for Development*, *10*(2), 123–139. doi: 10.1002/itdj.1590100206.

Kosempel, S. (2007). Interaction between knowledge technology: A contribution to the theory of a development. *Canadian Journal of Economics*, *40*, 1237–1260. doi: 10.1111/j.1365-2966.2007.00450.x.

Kottemann, J.E, & Boyer-Wright, K.M. (2009). Human resource development, domains of information technology use, and levels of economic prosperity. *Information Technology for Development*, *15*(1), 32–42. doi: 10.1002/itdj.20114.

Ngwenyama, O., & Morawczynski, O. (2009). Factors affecting ICT expansion in emerging economies: An analysis of ICT infrastructure expansion in five Latin American countries. *Information Technology for Development*, *15*(4), 237–258. doi: 10.1002/itdj.20128.

Pick, J.B., & Azari, R. (2008). Global digital divide: Influence of socioeconomic, governmental, and accessibility factors on information technology. *Information Technology for Development*, *14*(2), 91–115. doi: 10.1002/itdj.20095.