Call for Papers

Track 10. Sustainability in ICT4D

Track chairs/associate editors

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Overview of the research area

Sustainability can be considered from different perspectives, e.g. economic, institutional, social, political and environmental, as well as in terms of short, medium or long term views (Marais, 2015). The ultimate economic system question is: how many earths are required to sustain the rate of resource consumption inherent in most of the current development trajectories of the world's economies. Other views grapple with the notion of what development is and therefore what sustainable development would be, e.g. the definition of development as freedom of choice by Sen (1999). The recent adoption of the sustainable development goals (SDGs) has raised a host of issues as to how implementable they are and the role of ICT needs to be explored.

ICTs can play an important role in decoupling economic development from the use of natural resources, so that resource use does not increase with economic development, giving rise to so-called Green IT initiatives (Giljum et al. 2005; Murugesan, 2008)). At the other end of the spectrum a many different development initiatives, including ICT-enabled development initiatives struggle to be sustainable, and therefore the question is how these initiatives can become sustainable in the long term, in order to contribute to the sustainability of developmental strategies at country or global level. A study of more than 280 ICT4D projects that focussed on mobile services and business models for the Base of the Pyramid was found that successful projects focused on the "ability and willingness of their customers to pay, rather than on identified social needs and supposed demand" (De Carvalho et al. 2012, p. 200). This is an example of an 'exogenous' model for development that assume that an external cause such as an ICT4D intervention can achieve development outcomes framed mostly as economic growth(Mansell 2011). There are also **socially-led** strategies that are 'endogenous' and focus on **internal causes** where ICT4D intervention strategies are developed with the intended beneficiaries (ibid.; Heeks, 2008).

In considering the **sustainability of ICT4D initiatives**, researchers are confronted with a number of issues that may or may not be coupled to the concept of sustainable development. A key issue is to identify the intended benefits of the project, and to determine the extent to which benefits should be sustained. At a project level, researchers, participants, existing system owners (e.g. an education department), and implementers are then confronted with the question of how to design and develop projects in such a way that the benefits created by the project are sustainable over an appropriate period of time, and in a specific (resource constrained) environment (Meyer and Marais, 2015). This calls for an understanding of the dynamics of the system within which the intervention is deployed, as well as an understanding of the nature and extent of change that needs to be facilitated and sustained. Some approaches have focused on linking project management practices to dimensions of sustainability (Pade-Khene et al, 2011), while others are focusing on supporting role players in making decisions in support of sustaining benefits (Meyer and Marais, 2014).

We welcome any paper that deal with sustainability issues from a diversity of perspectives (social, economic, cultural, developmental aims, empowerment, etc.), at one or many of the different levels in development (micro- to macro-level) and specifically the role of IS or ICT4D initiatives:

Firstly, papers should embrace a sustainability philosophy overall, such as being concerned with development for sustainability pathways, long term versus short term views on sustainability, society or project views, bottom up participant perspectives, NGO, donor, government, or technical perspectives.

Secondly, papers should use a clearly described approach to development and sustainability or sustained benefit, and motivate its relevance in the research, implementation and societal context being discussed.

Suggested list of areas
- Implications of sustainable development schools of thought on the role of ICT4D
- ICT4D as part of larger development strategies
- ICT4D Project approaches in support of sustained benefit
- Decision making for sustained benefit at strategy level
- Decision making for sustained benefit at initiative level

For paper format and submission guidelines please refer to the main conference website.

In order to provide some indication of relevant work a few references are provided.

Bibliography

Development theory:

Escobar, A. 1992. Reflections on 'Development: Grassroots approaches and alternative politics in the Third World. *Futures*, June 1992, p. 411-436.

Sen, A. 1999. *Development as Freedom*. Oxford University Press: Oxford.

Sen, A. 2002. Response to Commentaries. *Studies in Comparative International Development*, 32(2), pp. 78-86.

Sustainable development and ICT:

De Carvalho, A., Klarsfeld, L., and Lepicard, F. 2012. "Leveraging Information and Communication Technology for the Base Of the Pyramid: Innovative business models in education, health, agriculture and financial services." Accessed November, 2015. http://hystra.com/leveraging-ict

Giljum, S., Hak, T., Hinterberger, F., and Kovanda, J. 2005. "Environmental governance in the European Union: strategies and instruments for absolute decoupling". International Journal of Sustainable Development, 8 (1/2): 31-46.

Mansell, R. 2011." Power and interests in information and communication technologies and development: exogenous and endogenous discourses in contention." Journal of International Development. DOI:10.1002/jid.1805. Accessed November 2015. http://eprints.lse.ac.uk/32152/

Sustainability perspectives in IT:

Murugesan, S. 2008. "Harnessing Green IT: Principles and Practices." IT Professional, 10(1): 24-33.

Sustainability in ICT4D:

Grunfeld, H., Hak, S. and, Pin, T. 2011. "Understanding benefits realisation of iREACH from a capability approach perspective". *Ethics and Information Technology,* 13, pp. 151−172. DOI 10.1007/s10676-011-9268-4.

Heeks, R. 2008. ICT4D 2.0: The next phase of applying ICT for international development. *Computer*, 41(6): 26-33.

Marais, M. A. (2011). "An analysis of the factors affecting the sustainability of ICT4D initiatives", in J Steyn and E M Villeneuva (eds), Proceedings of the 5th International Development Informatics Conference (IDIA2011): ICT for development: people, policy and practice, 26-28 October 2011, UCT, Lima, Peru. Conference CD. Published by the School of Information Technology, Monash South Africa. November 2011. ISBN 978-0-620-51717. (pp. 100-120) Available at http://hdl.handle.net/10204/5374

Marais, M. (2012) *An overview of the role of social capital in development processes*. in L Stillman, T Denison, A Sabiescu, N Memarovic (eds), Proceedings of CIRN 2012 Community Informatics Conference: Ideals meet Reality. 7-9 November, Monash Centre, Prato Italy. Conference CD. Published by the Centre for Community Networking Research, Caulfield School of Information Technology, Faculty of Information Technology, Monash University, Caulfield East Australia 3045. ISBN 978-0-9874652-0-7. Available at http://ccnr.infotech.monash.edu/assets/docs/prato2012docs/marais.pdf

Marais, M. A. (2015). ICT4D and Sustainability in *The International Encyclopedia of Digital Communication and Society (IEDCS)*, Mansell, R. and Hwa Ang, P. (Editors-in-Chief). John Wiley & Sons, Inc. (ISBN 978-111-829-074-3). Available at Wiley Online Library http://onlinelibrary.wiley.com/book/10.1002/9781118767771 and at https://www.dropbox.com/s/q3hs6lk0d6yzqrf/Marais_ICT4D%20and%20Sustainability_IEDDCS_2015.pdf?dl=0. DOI: 10.1002/9781118767771 Published in print on 9th February 2015.

Meyer, I. A. and Marais, M. A. (2014). Section 6: Sustainability and Value through Improved Decision making, in *Designing and implementing an Information and Communication Technology for Rural Education Development (ICT4RED) initiative in a resource-constrained environment: Nciba school district, Eastern Cape, South Africa*, Herselman, M. E. and Botha A. (eds.) pp 205-236, Edition: 1 published by CSIR, Pretoria. ISBN 978-0-7988-5618-8 (hbk). DOI: 10.13140/2.1.4932.5121 https://www.researchgate.net/publication/269463719_Sustainability_and_Value_through_Improved_Decision-making

Meyer, I. A. and Marais, M. A. (2015). Design for Sustainability: Countering the Drivers of Unsustainability in Development Projects. *Journal of Community Informatics*, 11(3). Available at http://ci-journal.net/index.php/ciej/article/view/1169/1161

Pade-Khene, C., Mallinson, B., Sewry, D. (2011). Sustainable rural ICT project management practice for developing countries: Investigating the Dwesa and RUMEP projects. *Information Technology for Development*, 17(3), 187-212.

Van Rensburg, J. , du Buisson, U., Cronje, B., Marais, M., and Haruperi, E. (2014). *Beyond 'Technology for Development' and 'Sustainability' towards Systemic and Holistic Rural Innovation: Success Factors from the Southern African Experience over 20 years*. 3rd UNESCO Conference on Technologies for Development (Tech4Dev), 4-6 June 2014, EPFL, Lausanne, Switzerland. http://cooperation.epfl.ch/2014Tech4Dev

Important dates
Paper submission: November 15, 2016
Acceptance notification: January 31, 2017
Resubmission: February 28, 2017

Conference: May 22-24, 2017

Conference co-chairs
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