

**Summary of the Workshop of the
International Development Informatics Association
Monash South Africa
30 October 2007**

Prof Graeme Johanson

This summary tries to distil four themes from what was presented and discussed at the Workshop on 30 October, covering Collaboration, Technology and change, the Global influence of cell phones, and Commitment to reducing the digital divides. Comments on the themes are taken from the contributions of individual presenters to the workshop which ran for 7 hours.

1. Collaboration.

Prof Tyrone Pretorius, Pro-Vice Chancellor, Monash South Africa, began the day with the following maxim: 'Now is the time for us to turn to each other, and not on each other'. Because Africa is culturally diverse, there is much potential for research into critical social challenges. He pointed out that we all need each other as individuals, groups, and organisations. He set the scene for a strong theme throughout the day – the multiple values of collaborations. Prof Wal Taylor, Cape Peninsula University of Technology, turned to the national policy relevance of collaboration by quoting President Mbeki's speech in 2006 in which he encouraged the infusion of *ubuntu* (i.e., 'community', or 'I am, because we are') into all aspects of South African life. It applies even to market-led solutions to social equity, Wal Taylor argued. For him, ICTs can cut across traditional boundaries and they should break down silos of knowledge and reduce barriers in communities.

Collaboration between researchers and between disciplines is also important. **Prof Sospeter Muhongo**, Regional Director for Africa, International Council of Science, highlighted a need to view scientific systems together. In his opinion, health, information and communications technologies, and climate change could work together productively. Many speakers alluded to the value of collaboration between the academy, the third sector (civil society), business and government. Kobus Roux, Meraka Institute, CSIR, described his modus operandi as seeking collaboration between industry, government and researchers, as a matter of course. Emer Prof Don Schauder, Chair, Centre for Community Networking Research, Monash University, named several relevant inclusive organizations which already make an impact in the field of development informatics: the Community Informatics Research Network; The Information Society Institute, at the Cape Peninsula University of Technology; the Meraka Institute, which includes the W3C office in Pretoria; and the Centre for Information Technology and National Development in Africa (CITANDA), based at University of Cape Town.

The need for good relations between academic researchers and business was a common theme. Sospeter Muhongo, believed strongly in the value of collaborations by means of private-public partnerships. **Dr Jay van Zyl**, Director, SystemicLogic, gave many reasons for bringing commercial research closer to academia. Unfortunately, there is a very strong resistance by business to using academic research. The term 'academic' is taken to mean 'slow' and 'impractical' by business people. Illogically, business will favour a short Deloitte or Gartner report over a thorough Master's thesis. Overcoming prejudice will allow for better collaborations.

Dr Danie Smit, Senior Research Scientist, SAP South Africa, addressed issues about how a large company like SAP speaks to small, medium and micro-enterprises (SMMEs), and also how it can relate well to South African culture in organizations. Collaborations in these instances are affected by scale and culture.

An additional dimension to collaborations emerged from studies undertaken by **David Barnard**, Director, Sangonet. These suggest that community-based organizations and NGOs face many similar issues to small businesses in relation to ICTs. Shared problems suggest that collaborative solutions may help. For instance, both types of organizations place heavy reliance on a friend or a relation (jokingly known as 'Fred') to solve technical service problems. Uptake of ICTs by third sector organizations in South Africa is not low: 80% of NGOs in South Africa are ADSL users.

Involvement of communities in all phases of academic projects is essential. **Kobus Roux** has adopted the concept of the 'Living Lab,' which involves placing practical research in the community, as a platform for collaboration. One of his projects is based in a poor Moutse village of 15,000 people, close to Groblersdal, Limpopo, in a medical centre treating AIDS, where community needs are heeded first and foremost.

2. Technology and change.

Obviously the speed of technological change increases all the time. Technological change was a second theme of the Workshop. **Jay van Zyl** pointed out that business is hungry to know what will happen in relation to ICTs in the next 5 years. But futurology is hazardous.

Integration and mobility is also increasing all the time. **Ray Delgarno**, Managing Director, and **Willie de Jong**, Technical Director, of Keytools, demonstrated their applications for cell phones, their Mobile System Concept Flow which brings together content management, electronic forms, GPS, offline or online (Delta-synched), metadata, data compression, and a knowledge management repository.

Many speakers emphasised that technology is not an end in itself, but must act as the servant of communities. With this emphasis in mind, **David Barnard** informed that Sangonet has changed from its role as service provider to being an ICT facilitator.

Prof Don Schauder also highlighted the need to use IT as a tool for community betterment, by posing the question: could technical solutions and collaborative models developed by the Indian Institute of Technology and its rural partners in India (aAQUA), help to meet the development needs of Africa? In concert **Dr Jacques Steyn**, Head of the School of Information Technology, Monash South Africa, argued that ICTs should provide communities with the means which they need to empower themselves for change from within.

Dr Judy van Biljon, School of Computing, University of South Africa, investigated empowerment from the perspective of adoption of cell phones in her recent systematic study of 168 cell phone users in South Africa. She found that the motivations for adoption of cell phones are not all technical by any means. She

identified many cultural and motivational factors as important influences on mobile phone adoption and usage. To the fore in her project were the satisfaction of basic human needs and the practical issue of systems costs to phone users – by far the most important determinants.

Prof Sospeter Muhongo, Regional Director, International Council of Science pointed to a basic problem in the region: about 80% of Africa has no electricity. But he acknowledged that using ICTs for learning in Africa would be a great boon for sharing useful knowledge.

3.Global influence of cell phones.

Mobility has proved great asset to many. **Dr Wallace Chigona**, of the Department of Information Systems, spoke of a study which found that students at University of Cape Town, use the Internet more on their PDAs than in Internet in cafes.

Assoc Prof Graeme Johanson presented a proposal to investigate how cell phones enhance the opportunities for self-employment, growth of micro-enterprises and development of social capital, amongst the poorest households and communities in urban and rural areas in South Africa, China, and India. Through a large comparative study of cell phone use by groups across a range of variables including location, size and type of business, gender and socio-economic status of cell owner, and the nature of communities, the study will aim to understand the impact of cell phones on business performance and development objectives, and the reasons for differential patterns of access, usage and benefits. It will also aim to develop policy recommendations to promote the better deployment of cell phone technology for development of medium-to-small enterprises, community-based organizations, and other groups of cell phone users.

The importance of cell phones was mentioned by several presenters. Jacques Steyn pointed out that cell phones are used across 32% of the globe. Ray Delgarno said that there are 500,000,000 cell phones in China alone. **Brett Kinsey**, Senior Manager Partners, MTN Business Products and Solutions, represents a telco with sales in 11 African countries. There are currently 31,500,000 MTN subscribers in South Africa, with a 35% growth rate per annum. He estimates that in 2008, 3 billion people around the globe will have access to mobs. Wallace Chigona pointed out that there are more cell phones in Africa than fixed line phones.

This led Kobus Roux to pose the pertinent question as to how to measure the net economic impact of cell phones on rural areas? The research project mentioned will try to answer this question (and others).

4.Commitment to reducing the digital divides.

Both Tyrone Pretorius and Sospeter Muhongo mentioned major social changes occurring in Africa in relation to poverty, health, literacy, ICTs and sharing knowledge. Others mentioned the divides between developed and developing countries in trade, energy, resources, democracy, technology, and jobs. The developing world lacks a forum for voicing its needs loudly.

The importance of making use of local communities for helping to develop beneficial projects was mentioned by Don Schauder, who advocated maximising the

contribution of community experts on the ground, and by Jacques Steyn, who referred to enhancing local knowledge as a powerful incentive to improve living conditions.

The theme of serving the needs of disadvantaged groups was raised by David Barnard in relation to disabled people, by Sospeter Muhongo in relation to women (the fact that only 2% of property in Africa is owned by women), and by **Vuyo Wayi**, of the Department of Information Systems, North West University, Mafiking Campus, in relation to marginalisation of minority languages.

Practical projects to bridge the divides are planned. **Johann Van Rensburg** described his Infopreneur Community Establishment Strategy, out of the Meraka Institute, which aims to encourage accelerated and shared growth to increase other forms of development. His work involves three fundamental challenges, viz., identifying

1. how ICTs sustain economic development,
2. ways to enhance access for the ICT user, and
3. the means to increase jobs in the 'second economy'.

As a result of the above findings of this workshop, **IDIA** at Monash aspires to:

1. Promote collaborations with researchers, community-based organisations, business, and government.
2. Advance practical projects which enhance digital inclusion.
3. Promote the emergence of the International Development Informatics Association, and its overall objectives.
4. Aim to hold further workshops and conferences on the theme of development informatics.
5. Advance a research agenda that promotes the range of uses for ICTs for development, and create new projects in order to better understand the developing world.

Notes by Assoc Prof Graeme Johanson.