

IDIA International Development Informatics Association

Proceedings of the 3rd International IDIA Development Informatics Conference
28-30 October 2009
Berg-en-Dal
Kruger National Park
South Africa
ISBN 978-0-620-45037-9

Establishing a Living Lab Network in Southern Africa

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Abstract

It is only through well established partnerships between citizens, businesses and public authorities, that the Living Labs model allows people, industries, Higher Education institutions, government, government organizations or local governments to collaboratively test tomorrow's best innovations in Information and Communications Technologies (ICT). It was with this view in mind that the Living Labs in Southern Africa (LLiSA) network was established and officially launched in Cape Town in 2009, to act as a platform for establishing a community and network of Living Lab practitioners in the Southern African region, aiming at advancing and supporting open user-driven innovation and Living Labs in Southern Africa. The network support and coordination project was initiated by three parties: the Cooperation Framework on Innovation Systems between Finland and South Africa (COFISA), the South Africa - Finland knowledge partnership on ICT (SAFIPA) and the Meraka Institute of the CSIR.

The LLiSA network allows for small groups of Living Labs in different regions to join forces by sharing knowledge, services and even developments based on win-win strategies to pave the way for co-selling developments and services on the Southern African market rather than just on their local regional market. This network can be of particular interest for rural communities, SMEs and micro-entrepreneurs, which do not have the expertise and resources to expand their activities to other regions or across Europe (for instance the European Network of Living Labs or ENoLL) due to different structural characteristics, regulations, or societal and economic structures in

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the respective regions and countries. The objective of this paper is to provide insight into the concept living labs in Southern Africa by indicating what it is, where it has been functional, its multidisciplinary nature and how it was established in Southern Africa. The role of the LLiSA network is provided in order to understand its purpose, objectives, activities and functions within Southern Africa.

Keywords: Living Labs, Southern Africa, network of Living Labs, rural communities, partnerships, user-driven innovations

Introduction and background

Living Labs are systemic initiatives, which focus on creating multi-stakeholder collaboration in different stages of the research, development and innovation (RDI) process. It is a concept which refers to a research and development methodology where innovations such as services, products and application enhancements are created and validated in collaborative, multi-contextual empirical real-world settings (Eriksson, Niitamo & Kulkki, 2005).

Living Labs, users or citizens are seen as a source of new innovations, as co-creators of new services and products, typically linked to creation or application of ICTs or ICT-enabled services. Living Labs are platforms for exploring these opportunities in various areas; for instance in e-commerce, healthcare, transport, tourism development, energy production and so forth.

Living labs are getting momentum especially in developing communities; the driving force being resource-sharing capabilities coupled with technology advancement demanding extensive infrastructure that is not easy to acquire. According to Van der Walt, Buitendag, Zaaiman & Jansen van Vuuren (2009:423) this is especially true for small and medium enterprises and those who need high technology to achieve their goals. There is a reduction of technology and business risks, and the large companies have a large pool of ideas to help in their ventures (Lama & Origin, 2006: 5-10). According to Boronowsky, Herzog, Knackfub& Lawo (2006) a living lab is more than a digital breeding area; it is a constructed setting of technology, shared by various researchers sharing the same drive, focused on finding the results and helping one another to achieve their goals.

The thinking and practice behind Living Labs has been developed over the last years especially in the EU, where the promotion and implementation of the approach has resulted in the creation of the European Network of Living Labs (ENoLL), which in 2008 expanded beyond European borders. Its mission is to help create first class innovation environments for ICT-based products, services and social innovations and facilitate innovation and collaboration between users, industry and research stakeholders. While the community is still young, and some of the pilots have a low degree of maturity, the approach has in many cases proved successful and is being adopted more widely by different actors, public and private. The network and pilot projects have also received strong political support, ranging from cities and local governments to the European Commission. This can be described as a collective effort to include users in a systematic way in a European innovation system (Stählbröst, 2008:34).

Beside the fact that a Living Lab gathers a network of complementary organisations and stakeholders involved in the R&D process in combining technology push and application pull, the main concept is to turn users, from traditionally being considered as a problem, into valuable co-innovators. There are currently 52 Living Labs across the EU that are members of ENoLL (Eriksson, Niitamo& Kulkki, 2005).

According to the nature and scope of each Living Lab, different scientific disciplines might be represented. For example, a City driven Living Lab could be oriented towards Social sciences, Humanities, Computer science and Policy development (i.e. e-government, e-democracy) and Environmental sciences as well as Energy for the benefit of citizens. A Regional Competitiveness Cluster driven Living Lab could be oriented towards Computer science, Biomedical and Life sciences, Physics, Aeronautics as well as Engineering for the benefit of regional business activities.

Therefore living labs allows for multidisciplinary research to take place for the benefit of the user (Schaffers, Cordobba, Hongisto, Kallai, Merz & Van Rensburg, 2007).

A User-centred Multidisciplinary Research Approach

Recent research studies (De Ruyter, van Loenen & Teeven, 2007; Kusiak, 2007) show that 70% to 80% of new product and service development that fails does so, not for lack of advanced technology, but because of a failure to understand real users' needs. Beside those studies there are other examples such as a dramatic aircraft crash which led to the conclusion, after analysing all elements, that the crash was mainly due to the change of analogical displays in the cockpit by numerical ones, which has turned into a miss-interpretation of parameters by the pilot during a stressful situation. Since this time, there is increased motivation to involve users at the earlier stage of the Research and Development (R&D) process in order to better understand the relationship between new innovative concepts and related users' behaviour within specific situations as well as potential cognitive workload in interpreting received signals. In this case the user interface was ill-designed and it is also a matter of task allocation based on confidence: the pilot trusts that the technical system will reach the expected performance and will give an alert in case of problems (Schaffers, et al. 2007).

Beyond the trust in a technical system, the web has brought another level of consciousness as the devices are used to connect people for shared activities. In many web applications, this is the case: for instance in commercial transactions (e-commerce) or in car-sharing (Turban, King & Lang, 2009:56). Clearly, to deal with these situations and support relationships, it is necessary to understand trust building mechanisms "in real life". In fact, if a technical system is intended to support social relations, it has to provide more than good response time, clear user interface and optimized code. It has to provide hints and clues that the other people on-line will follow implicit rules and will behave as it is expected by other stakeholders of an interaction situation.

A user-centred multidisciplinary research approach through the development of specific user experience prototyping environments (such as virtual/mixed reality environments displayed in figure 1 below) could also be used for the treatment of phobia where patients and psychologists are immersed together into a simulated environment reproducing stressful situations (Garett, 2002:78). This kind of environments where experience is important could also be used to design socially friendly public spaces in order to reduce the level of stress and increase the ambiance friendliness. That is also the reason why the words living labs and testbeds are sometimes used together. Mason Cooley as cited by Norman (2007:3), has said "Every path to a new understanding begins in confusion", which explains why people may have difficulties in perceiving the differences between a testbed and a Living Lab. Albert Szent-Gyorgyi, famous for his Nobel prize said "Research is to see what everybody else has seen, and to think what nobody else has thought" (De Ruyter and Pelgrim, 2007), which is exactly where Living Labs are standing now in arguing that building up user experience prototyping for exploring new innovative concepts and better understanding users' behaviour and their real needs are radically different from building-up a testbed for testing functionalities against requirements.



Figure 1: Experiencing Public Space Design (source: P&I Lab, Virtual Reality Laval Living Lab (VR3L))

Source: (ISTAG EAR, 2009)

There exist two different streams of thoughts regarding the Living Labs concept. Some definitions are of the opinion that a Living Lab is a pure “testbed” for innovative solutions while others see it as a pure means to conduct context research and co-creation with other users.

Følstad (2008:119) explained that Living Lab literature has served to identify two aspects that may be used to discriminate between the Living Labs that comply with the general definition:

- *Contextualized co-creation*: Living Labs supporting context research and co-creation with users
- *Testbed association*: Living Labs serving as a testbed extension, where testbed applications are accessed in contexts familiar to the users.

Several disciplines such as Computer science, Ergonomics, Economics, Cognitive, Psychology, Social sciences, Environmental sciences, Humanities and Life sciences are necessary for designing and building-up user experience prototype environments, exploring new concepts and related artefacts, making proper observations on and evaluations of different aspects according to the context of the specific research projects. The "observed end-users" are not necessarily immersed individually but could also be immersed as a group or even as a community which leads to richer observations and greater quantity of collected data which increases the reliability of the resulting analysis (Kusiak & Tang, 2006).

Therefore living labs are seen as multidisciplinary settings where the user plays a key element and where different research approaches can work well together.

The research approach

Living Labs have in general an important role in filling gaps. They bridge the different gaps between technology ideation and development on the one hand, and market entry and fulfillment on the other (Csikszentmihalyi and Larson, 1997). As flexible

ecosystems, Living Labs can provide a demand-driven 'concurrent innovation' approach by iteratively engaging all the key actors across the phases, and putting the user in the driver's seat. Living Labs often start their bridging in the applied research phase (Schumacher and Feurstein, 2007). Taking the step from technology prototypes for innovative and visionary users to evolving products for pragmatic and mainstream users, also called crossing the "pre-commercial gap" or "chasm", is the major acting field for Living Labs as iterative user involvement adds significant value to the rapid prototyping and service/product development phases. There is a growing industrial need for user-driven innovation and 'living-labbing' in an array of industries. Producer centred innovation is being eclipsed by user-driven innovation – the idea generation, concept development, prototyping, and even production of new products and services is done by users/consumers. These users aren't just voicing their needs to companies that are willing to listen; they're inventing and often building what they want (CoreLabs, 2008).

The ability to interact with the users in that space is what distinguishes the Living Lab approach from other cross-disciplinary approaches. Living Lab research can be seen as the place where both fundamental research and pure applied research meet as is explained below in figure 2 in yellow, it embraces user-inspired innovation research. The involvement of the user through the different research strategies is reflected in the figure below as well as the different research approaches which can be evident between the user involvement (orange) and the business-citizens-governmental layer (blue) in order to fill the gap/chasm between these two layers:

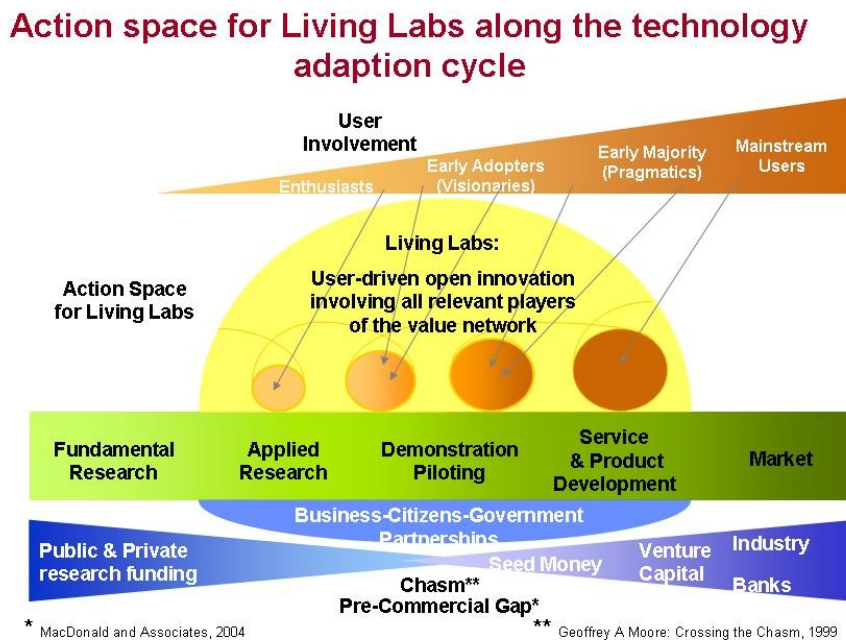


Figure 2: Action space for Living Labs (MacDonald & Associates, 2004)

The key idea according to Willis, Parker & Willis (2009) is that the project is led by the community and facilitated by the other actors. Sociologically it follows the agency theory model, where the technology is considered an equal agent of change to the person. It is a qualitative research method as it is in the real world.

According to Van der Walt et al. (2009:424) the Community Living Lab framework is based on a systems thinking grounding. Thinking is a process of figuring things out, knowing why and how things work. The framework presented provides the researchers perspectives of the various thinking activities and processes for a Living Lab. A Living Lab can be seen as thinking and rethinking support environments, connected to generic decision making (intelligence, design, choice and implementation) and action research (sense, learn, act) processes. Simply put, a Living Lab framework based on systems thinking can function as a springboard to prosperous communities to build entrepreneurial capacities and achieve sustainable continuous improvement.

The next sections will focus more in detail on the LLiSA network and its objectives and functions, as well as on existing Living Labs in Southern Africa and their co-existence.

Establishing Living labs in South Africa

In South Africa, citizens are mostly seen as passive and adaptive actors in the innovation process (Enkenberg, 2008), merely utilising technology developed elsewhere or prescribed to them by experts external to their situations. On the other hand, the challenge of developing sustainable solutions that involve disadvantaged sections of the population highlights the need to understand these user groups thoroughly. User-driven approaches could thus provide real value for developing and validating new concepts, services or products, allowing more rapid insights into how different users think, adopt, use and influence technology. As a systemic approach, this could lead to empowering users to become active partners in RDI processes for the future. It could also greatly benefit the current ICT for Development (ICT4D) community and help in creating more sustainable outcomes in the area of utilising technology in social and economic development. The Living Lab approach can also play an important role in addressing the need for the sustainability and scaling of ICT4D projects. Processes of institutionalization have been found to be crucial and four key processes of institutionalization have been identified: getting symbolic acceptance by the community, stimulating valuable social activity in relevant social groups, generating linkage to viable revenue streams, and enrolling government support (Madon, Reinhard, Roode and Walsham, 2009). The establishment of a Living Lab can be seen as getting the institutional partners on board and kick-starting these institutionalization processes.

South Africa is a particularly complex and diversified society, and correspondingly the market environment is very heterogeneous, incorporating groups of citizens and organisations that can be regarded as typical for both developing and developed countries. The diverse situation can be regarded as a core strength and opportunity for Living Lab activities, providing a rich array of contexts and groups of users to experiment and innovate with. It was therefore felt that a network of Living Labs similar to ENOLL should be established in Southern Africa to support innovation from a user-driven perspective. The Living Labs in Southern Africa network (better known as LLiSA) was therefore formed and officially launched on 24 February 2009 in Stellenbosch, South Africa (CSIR media, 2009).

Purpose of LLiSA as a network of living labs in Southern Africa

The purpose of the LLiSA network is to create capacity for understanding, establishing and developing Living Lab activities, support pilot projects in SA and to facilitate local and international collaboration and linkages. It will link interested

developers, research organizations, industry and government bodies together for advancing regional Living Lab initiatives. In addition to COFISA, Meraka and SAFIPA, a key role is envisaged for the newly accepted ENoLL members, namely Siyakhula Living Lab and Sekukhune Living Lab in South Africa and Maputo Living Lab in Mozambique, of which the first two are already supported by COFISA and Meraka respectively (Enkenberg, 2008).

As part of the planning phase for LLiSA, three workshops have been held in 2008 to identify potential for such a network, to identify role players and to pinpoint thematic action areas and methods of working for the proposed network.

What are the objectives of LLiSA?

LLiSA is a project for establishing a community and network of Living Lab practitioners in the Southern African region, aiming at advancing and supporting open user-centric innovation and Living Labs in South Africa (LLiSA, 2009).

The objectives therefore are to:

1. To build a strong, coordinated and functional network between existing and potential Living Lab researchers, utilisers and facilitators in South Africa
2. Facilitate learning about Living Labs and open user-driven innovation in South Africa;
3. To create a brand identity for LLiSA;
4. Encouraging collaboration between government, research organisations, the private sector, NGOs and users in Living Lab contexts;
5. Disseminate knowledge, experiences, build collaborative (project) activities and share resources among different other living labs;
6. Facilitate international collaboration, knowledge transfer and exchange between SA and Finnish/Nordic Living Lab experts and create international linkages in general;
7. To provide leadership for the Southern African activities e.g. give direction, develop goals, promote accomplishment of joint tasks, etc.;
8. Successes will be showcased and the status of Living Labs in SA will be raised for impacting RDI policies and funding frameworks;
9. Within Meraka also liaise with other projects and collaborate with them in a Living Lab space in order to ensure that technological innovations are streamlined for user interaction and ownership; and
10. Do research on different models, theories, best practices, impact assessment, monitoring and evaluation of technological interventions in communities and social systems and their intricacies.

The LLiSA network will mainly focus on the following strategic themes (LLiSA, 2009):

- Defining what value user-driven open innovation and Living Lab activities could provide in South Africa, at different levels (activity, system, policy), in economy (especially local economic development) and in society in general;
- Supporting the development of appropriate Living Lab models for different South African contexts (e.g. rural, urban);
- Research activities on different aspects of Living Labs or associated RDI activities, for instance Monitoring and Evaluation, action research, user involvement or design methodologies, consortium development, sustainability models;

- Open, participative, user-driven innovation – definitions, awareness, mainstreaming of ideas;
- Development of user-friendly services and applications of ICT in different sectors of society, for instance in government service delivery processes;
- International collaboration and partnering, creating links with e.g. other African initiatives, ENoLL, Nordic stakeholders and Brazil;
- Impact of Living Labs on local and regional economic development and rural revitalisation;
- Sectoral issues: health, education, tourism, agriculture, rural development;
- Bottom-of-the-Pyramid-business models / market-based solutions for poverty reduction; and
- Multidisciplinary collaboration, social sciences, ICT, engineering, business and economics, etc.

It was proposed that the function of co-ordinating LLiSA should be a principal responsibility for a team of at least two people working in the Meraka Institute (CSIR). The overall objective of the Institute is to support the creation of an environment which facilitates the development and deployment of ICT service applications for the benefit of South African citizens (Pitse-Boshomane, Marais, Morris, Roux, van Rensburg, Herselman, Makan, & Mulder, 2008). Thus the Institute's programmes address the creation and delivery of models of ICT based service applications which are suitable for local conditions especially in the most vulnerable part of population. The team at Meraka should focus on direct research in Living Labs, innovation / ICT for development and/or related fields. In addition the team should contribute to other key modalities of running the network, taking responsibility for community building / marketing issues and administrative tasks. The Meraka Institute has developed a proposal which has been accepted by both COFISA and SAFIPA (CSIR media, 2009).

Key Principles of LLiSA

Adding to the themes mentioned above, some key principles that should permeate all Living Lab operations according to CoreLabs (2008) are: Continuity, Openness, Realism, Empowerment of Users, and Spontaneity (CORES), and these are

- *Continuity*: This principle is important since good cross-border collaboration, which strengthens creativity and innovation, builds on trust, which takes time to develop.
- *Openness*: The innovation process should be gathering perspectives and bringing enough power to achieve rapid progress. The open process also makes it possible to support the process of user-driven innovation, including users wherever and who ever they are.
- *Realism*: To generate and facilitate realistic use situations and behaviour. This principle also is relevant since focusing on real users, in real-life situations, is what distinguishes Living Labs from other kinds of open co-creation environments.
- *Empowerment of users*: It takes the innovation process in a desired direction based on human needs and desires. Living Labs efficiency is based on the creative power of user communities; hence, it becomes important to motivate and empower the users to engage in these processes.
- *Spontaneity*: In order to succeed with new innovations, it is important to inspire usage, meet personal desires, and both fit and contribute to societal and social needs. Here, it becomes important to have the ability to detect, aggregate, and analyse spontaneous users' reactions and ideas over time.

The multi-contextual approach in Living Labs allows for the fact that many divergent Living Labs coexist and represent specific disciplines, and also that many Living Labs exist across communities and regions, thus incorporating a mixture of disciplines or objectives.

Important Stakeholders in Living Lab Contexts

LLISA may include a number of stakeholders which can be an eco-system of the following working together with the same aim (LLISA, 2009):

- *Academia and research organisations*. These are key stakeholders in determining the efficacy of collaborative validation approaches.
- *SMEs*. These are considered the major players whose increased innovation and competitiveness should be fostered through the Living Lab approach.
- *Business Industry and Service on broader scale*. These stakeholders can have
 - an interest in market trends and business practices that emerge from collaboration with players in that field.
- *Civic Sector and End Users*, These users will play a critical role in the validation of the environment.
- *ICT professionals*. These stakeholders have an important stake in the technical aspect and requisites for a project of this scope or nature.
- *Public Partners*. Their aim is to drive the socio-economic growth of the specific region in order to encourage specific resident groups.

The diversity of the stakeholders and the scope of the interests that they encompass demonstrate the complete co-creation approach that Living Labs embraces.

Success Factors for Living Labs

Living Labs objective is to enable sustainable, collaborative, multi-disciplinary, and relevant innovation. Hence, it can be assumed that this success can be measured broadly in terms of the following four elements (CoreLabs, 2008):

- *Innovation*
- *Collaboration*
- *Contextuality and*
- *Sustainability in terms of* employment creation, Inclusion and equality issues and competitiveness.

Again, the context is of great importance, but in this case, it is the Living Labs context, the region and society, that must be considered and in which the Living Lab must fit.

Status of activities in South Africa

Many of the activities currently carried out under the banner of Living Labs in Southern Africa are relatively young and still in the early stages, are sometimes dependent on a single partner (often a university or a research institution) and are often lacking in terms of real partnerships for local or regional development, usually manifested through private and public support and participation in the projects. This is a major area of development where LLISA could possibly play a role in attracting additional participation and partnerships. It would also provide the means to collectively monitor progress, identify value add and showcase successes of the individual Living Labs.

Currently, South Africa already has organizations such as Meraka and SAP Research that have been active in the European Living Lab network through a

European 6th Framework Living Lab project, Collaboration@Rural: a Collaborative Platform for Working and Living in Rural Areas(C@R). Living Lab models have been explored in Sekhukhune by the aforementioned organizations, the Limpopo Provincial Government and in Dwesa in the Eastern Cape by the universities of Rhodes and Fort Hare through their rural ICT projects in collaboration with COFISA, Nokia Siemens Networks and other partners. Various other Living Lab activities are in start-up phases (Moutse LL, Soshanguve LL, Athlone LL, Lesotho LL, etc.) with a number of interested parties emerging. The themes and concepts are therefore not entirely new in South Africa. The maturity of these activities has to some extent been officially recognized by the newly granted membership in ENoLL for three regional initiatives in Southern Africa: Sekhukhune, Siyakhula and Maputo Living Labs. The existing living labs have targeted rural development as a specific focus, but in the future, urban projects are seemingly willing and interested to join in, as demonstrated by the work that the Cape Peninsula University of technology (CPUT) is carrying out in Cape Town as well as a group of interested entrepreneurs negotiating with Meraka to set up a Living Lab in Alexandra Township in Johannesburg. The following summarizes the key initiatives currently active in growing Living Labs in SA (LLISA, 2009):

Living Lab	Focus of the LL
Athlone Living Lab (peri-urban)	Collaboration between CPUT, Community Organisation Impact Direct Ministries (IDM), Bridgetown Civic Organisation, local schools. "The creation, dissemination and application of knowledge for the empowerment, upliftment and development of people and communities, including living societies and organizations, in or headed for tension through the use of innovative ICT solutions." Feasibility study-phase: March to June 2009 (with COFISA support).
Limpopo Living Lab (rural)	Planned by the Limpopo Provincial Government. The LLL adopts the BUG-C collaboration model in developing technology and innovation solutions. Feasibility study completed in 2007. Feasibility report proposed four focus areas for LLL namely, community projects(in technology and innovation), innovation solutions, business development and incubation of technology and innovation enterprises as well as training and development which are also part of the Limpopo ICT Institute.
Siyakhula Living Lab (rural)	Partnership in the Eastern Cape between Universities of Rhodes and Fort Hare, established March 2006. Lead rests with Computer Science Departments, but involves the Education, Linguistics, Information Systems, Anthropology, Depts. Based on a relationship with the community established by Anthropology Dept. in 2001-2003. Rural ICTs focusing on software applications, e-Services, Web 2.0, empowerment and community engagement. Feasibility study-phase in June 2008 for Village Connection experiment with Nokia Siemens Networks, Meraka Institute and COFISA. Member of the European Network of Living Labs (ENoLL).
Moutse Living Lab (rural)	Partnership between the Ndlovu Medical Centre, Elandsdoorn Development Trust, INTEL and Meraka. Education, telemedicine and rural connectivity.
Sekhukhune Living Lab (rural)	Partnership between the the Meraka Institute and SAP Reseach. Rural Micro-Service Enterprise creation and the development of ICT-enabled collaborative work environments (e.g. collaborative procurement and logistics, collaborative stock management).

Soshanguve Living Lab (rural)	Planned by Tshwane University of Technology (ICT Faculty); Education, Research, Community Development, Job Creation.
Bushbuck Ridge Living Lab (rural)	Partnership between SAP Research and Wits University. Electronic Patient Health System for chronically ill patients in rural areas.
iCyber Leadership Lab (urban)	In Pretoria Central Business District. Explores the use of different computing platforms to improve leadership capabilities and effectiveness. Study leadership innovations in cyber space. Equip established and potential leaders. Promote the innovative use of computing platforms, techniques and practices

More information on each of these LL can be found in the wiki (http://llisa.meraka.org.za/index.php/Main_Page, LLiSA, 2009) that was created to enable LLs to share their work and market their Living labs. A key aspect of the LLiSA network is to ensure constant collaboration across these LL as well as a sharing of lessons learnt, contacts with industry partners and recognition. Recently two members from the Siyakhula LL from South Africa have won the TIM (Telecom Italia Mobile) Operator's Award in the Gemalto SIMagine Developer Contest at the Mobile World Congress (MWC) in Barcelona, Spain. The international competition sources innovative projects in the field of wireless applications that provide mobile phones with value-added services.

This year a duo from Rhodes University was selected by a committee of international jurors as one of eight finalists from over 200 entries worldwide. The team consists of Dr Hannah Thinyane, a Computer Science lecturer at Rhodes University, and Dr Mamello Thinyane, lecturer and research coordinator at Rhodes University and the University of Fort Hare. Their concept, iCanSee, is a Smart Card Web Server (SCWS)-based application developed to provide the visually-impaired community with improved cellphone functionality (Engelbrecht, 2009).

Collaboration between the Living Labs

Each lab can add content and ideas on the LLiSA wiki which will be augmented by a web-based system soon. Conferences and workshops are used as additional platforms in LLiSA to bring the living lab community together to share their user experiences and other assets such as knowledge, business networks, user communities, partnerships, policy innovations, infrastructures and technologies. The LLiSA board is also busy with a terms of reference document which will highlight LLiSA's criteria for a living lab, definitions, business cases, business models and services of LLiSA which will be shared by the LLiSA community. Open invitations are mailed between living labs if, for example, a world renowned expert in a specific domain will be visiting their lab in order for others to also collaborate across different borders.

As the other LL initiatives in Southern Africa grow they may also become innovation platforms which can, together with the users, provide opportunities of improvement in the lives of ordinary citizens.

From a market and industry creation viewpoint, Living Labs offer a research and innovation platform over different social and cultural systems, cross-regionally and cross-nationally. As such this is a good basis for rapid mass customization even with

global reach. On the other hand, Living Labs as a research approach may deal with social and environmental sustainability as well as other socio-techno-economic impacts that should contribute to the productivity, creativity and innovativeness of Southern Africa.

A regional, national or Southern African-wide network of Living Labs strengthens the opportunities to integrate social innovations with technological innovations on a wider scale that contributes to socio-economic dynamism and end up adding to regional, national or Southern African wide global competitiveness, growth and job creation. Thus LLiSA can be seen as large-scale experimentation platforms for new service, business, technology, or even market and industry creation within ICT.

Conclusion

Although still in its infancy it is believed that the LLiSA network provides for a fruitful platform for multidisciplinary engagements between industry, researchers and users with the potential to provide or develop more community-owned innovations.

The next step in supporting and establishing the LLiSA network is to get more industries on board, increase the marketing of the concept to research institutions and businesses working directly within rural communities and also to collaboratively apply for funding to support initiatives in the different Living Labs in SA. Research partnerships in the Development and Community Informatics domain will also be developed. The maintenance and support of the LLiSA wiki where interested parties can read about this methodology will be supported by Meraka. The arrangements of workshops to market Living Labs is crucial and therefore the SAFIPA conference in June 2009 was important to share some best practices amongst LL regarding the lessons they have learnt in establishing themselves as LLs.

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