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Introducing this issue

More and more the question of what people and communities are actually doing with ICTs and how they are benefiting, is on the international agenda. This issue focuses on some current research in this area.

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SDC and the Digital Divide

Back in 1997, when the term 'Digital Divide' and the acronym 'ICTs' carried little or no meaning, the Swiss Agency for Development and Cooperation (SDC) was quick to recognise the potential impact of new information and communication technologies (ICTs) on development. Gabriele Siegenthaler introduces the work of SDC on "ICTs for Development".

SDC has always considered knowledge to be a core resource for development. ICTs have added a new dimension to the exchange of knowledge by increasing the speed of interaction and reducing the cost of communication. This represents an unprecedented potential for networking and information exchange.

ICTs are a powerful tool that need to be integrated into a broader development perspective. The digital divide is not – or not only – a technical and infrastructure question.

SDC's approach is aimed at poverty reduction and empowerment, looking at the potential of the new technologies from a human perspective. It includes the strengthening of institutional, organisational and human capabilities, especially by empowering local institutions, networks and organisations. In this respect the exchange of experiences and information in a South-South context is especially relevant.

Special attention must also be paid to enhance local and indigenous knowledge and to promoting local, multicultural content on the Internet. Access to information and technology alone is not enough; otherwise, the developing world will simply become consumers of information produced in the industrialised world.

In the global policy dialogue, the voices of developing countries and their stakeholders need to be heard and particular consideration must be given to disadvantaged

groups and areas in the formulation of global, national, regional and sectoral policies and strategies.

SDC is active at various levels. On a multilateral level, it is engaged in various global networks and initiatives that focus on ICT for development such as the Global Knowledge Partnership (www.globalknowledge.org).

It also takes an active interest in the preparation of the World Summit on the Information Society (www.itu.int) with a view to supporting developing country stakeholders in formulating their views and needs and in making their voices heard.

On a bilateral level, SDC finances selected projects and programmes that use ICTs to realise their aims and to maximise their effectiveness. The question of mainstreaming ICT into development projects at large is particularly relevant, and strategies and experiences need to be identified to utilise these new tools in an optimal way.

SDC's activities are based on the understanding that a new, networked world has begun. The sharing of information and experiences is not diminishing their value, but increasing it.

That is why alliances and synergies, networks and informal fora are of vital importance in realising an information society. It is in this spirit that SDC has joined the BDO partnership – to learn, to share, and to exchange.

Theory, research and writings on ICTs and development

As the body of writing on ICTs for development grows, we should be learning more about what we are doing and how well we are doing it. Richard Heeks is not so sure. He argues that practitioners need to push more into theory, while avoiding some of the 'ivory tower' errors of more academic writings.

Introduction

The field of 'ICTs and Development' (ICT&D) – together with its much smaller but older cousin 'Information Systems (IS) and Development' – has now produced a significant set of writings, which is however very mixed in style and approach.

One major strand of writing has been the individual project or country case study. Such studies have been largely descriptive, rooted in the practical realities of ICT implementation, and hard to generalise.

It was partly the dominance of such writing that led Sundeep Sahay and Geoff Walsham to call for more use of theory in the field of ICT&D. They argued various values for theory:

- a means for researchers to communicate with each other;
- a means for researchers to communicate with practitioners;
- a means for accumulation of knowledge;
- a means for legitimacy and recognition of this field as an academic discipline.

They also noted that writings engaging with theory can be used in two main ways: To develop and refine theory, or to bridge the gap between theory and practice.

The ICT4D Literature

What progress has been made since this 'call to arms'? A review made of writings indicates that relatively non-theoretical material still predominates. There is an awful lot of project descriptions, with a few models here and there, but an impending danger of just going round in circles.

This is even true at the relatively academic end of the spectrum. The limited minority of papers engaging with theory root their purpose in social science theories and return to those theories in the analysis of their data.

The reviewed papers represent writings of significant value: They are mostly accessible (more so than the theoretical sources they cite!) and they clearly demonstrate a contribution to accumulation of knowledge.

The ICT&D field can be characterised as a 'periphery' that surrounds a 'core' of mainstream information systems and social science research. Writings, then, are not periphery-to-periphery interchanges, but individualised core-to-periphery flows.

In terms of communication between researchers, ICT&D writings show a surprising and disappointing lack of inter-referencing. Citation of ICT&D work in mainstream information systems journals is practically non-existent.

If ICT&D writers don't seem to read and value each other's work, why should anyone else? The picture is sadly reminiscent of the relationship between development economics and mainstream economics.

Theory-Aplying Not Theory-Building

In part, the lack of interchange and citation may relate to a further shortcoming – most ICT&D theory-oriented writing is 'theory application' not 'theory building'. Almost all recent theory-engaged writing takes a 'core idea' and shows how it fits a particular developing country case study or set of data. This suggests too much deference to these core ideas or an opacity of those ideas that makes refinement hard to achieve.

This is a great pity because ICT cases from the South have much to offer the wider world. In practical terms, such cases can be easier to research, with lower barriers to access, greater openness of respondents and greater willingness to spend time with researchers than is increasingly found in the North.

In theoretical terms, developing country ICT cases offer new insights into theory. They provide a unique perspective on theories like inscription and structuration.

The Gap Between Theory and Practice

Can theory-engaged writing on ICT&D contribute to practice? There are some positive signs. As noted above, most (though not all) such writing is accessible enough to be understood by a 'reflective practitioner'.

In terms of value to practitioners, only a tiny fraction of theory-related papers focus on practical implications in their conclusions. The majority of theory-engaged writing draws from practice to inform writing, but fails to then develop findings of practical value. Yet the ultimate purpose of theory must be not just to provide a better understanding of the world but also to provide the basis for better interventions in that world.

In many ways this practice-related shortcoming explains why the recently-grown activities and networks on ICT&D – with their fetish for action over analysis – have overlapped so little with the long-standing 'IS and development' world.

Summary

In summary, ICT&D writings generally need to focus more on analysis and less on description, to clearly create new and generalisable knowledge, and to engage more with theory for these purposes. Such writing on ICTs and development must therefore do more to:

- criticise and refine core information systems and social science theories, not just subserviently apply such theories; and/or
- develop new theoretical viewpoints that build upon the collective enterprise and shared expertise of ICT&D writers; and
- ensure that writing is intelligible to the 'reflective practitioner'; and
- demonstrate the contribution that theoretical ideas can make to the practical application of ICTs in development.

More: www.icconnect-online.org has a full text of this article.

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NEWS FROM BDO PARTNERS

The Building Digital Opportunities (BDO) programme is a package of cross-sectoral initiatives to address key barriers and opportunities for ICTs in achieving development targets. Funded by DFID, DGIS and SDC, the programme has been put together as a partnership with a number of key organisations – the Association of Community Radio Broadcasters (AMARC), the Commonwealth Telecommunications Organisation (CTO), the International Institute for Communication and Development (IICD), OneWorld International, and the Panos Institute. Its five key areas of activity are:

- Strengthening local capacity in developing countries to address policy and regulatory environments.
 - Support for a programme of demand led pilot projects, implemented as part of an ongoing series of stakeholder ICT roundtable processes in selected developing countries.
 - Support for information inclusion for the poor through activities on community media and linking old and new ICTs.
 - A strategic partnership with a global 'development' Internet partner.
 - Knowledge and research activities in key areas to support the above programme.
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NEWS FROM ONEWORLD

Open Knowledge Networking

Growing out from the DOT Force, OneWorld and other partners have developed a proposal for an open knowledge network to promote the creation and exchange of local content as widely as possible across the South.

The OKN

It is generally agreed that information is a key component of development and that sharing knowledge more widely will enhance the opportunities of the poorest. This project explores how this can best be achieved at the local level.

We start with the question: if a member of a poor community goes into a telecentre, what kind of content would be most valuable to him or her?

- **Relevant:** Content relevant to poor communities can be created either locally or come from outside: choosing what is most appropriate is best done by the communities themselves.
- **Accessible:** The content must be available in the local language and in many cases will have been formatted or edited to ensure the information is accessible to the differentially educated.
- **Meaningful:** The OKN proposal is essentially about people, what they want, what they enjoy, and what is relevant to their lives – technology comes a poor second.

The purpose of the OKN is to promote both the creation and the exchange of local content as widely as possible across the South.

Local content development is closely tied to human development, and the ultimate goal of the OKN proposal is the empowerment of local communities.

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More: <http://www.dgroups.org/groups/okn/>

OneWorld Radio: Servicing a growing radio for development community

The OneWorld Radio portal, launched in April 2002, has revealed that there is indeed a sizable community of development focused broadcasters and NGOs who are enthusiastic about networking online, and sharing audio and resources.

Within five months, OneWorld Radio has grown from a base of 200 members and 200 audio files at launch to over 500 members from 45 countries, sharing over 800 audio files in 19 languages.

In September 2002 for example, 35 new members from Australia, Austria, Bangladesh, Bolivia, Brazil, Canada, Congo (DRC), France, India, Ireland, Kenya, Nepal, New Zealand, Philippines, South Africa, UK, and the US joined OneWorld Radio.

The motivations for joining are as diverse as the membership. Some join to gain an international online presence, while others want to find and share information about potential funders.

The audio exchange facility is a major attraction, and it is gratifying to hear from members about the use they are making of the audio content. "I produce a radio programme on HIV/AIDS targeting the youth," says OneWorld Radio member Thelma, from Bushbuckridge Community radio station, in South Africa, "Its amazing that we came across this web site while we were looking for radio material for a show I was preparing to do. Your material is indeed helpful."

Other members, like MP-FM in Indonesia, say that joining an international community gives them support in lobbying for more enabling media laws in their own country. "It's not easy to set-up a non-commercial radio as a community radio in Indonesia according to the present law," say Programme Coordinator Hidayat Kristono. "So being an international member is very helpful to strengthen our position."

Members are also using the radio portal as a networking tool. In the 'Working Together' section, members are beginning to post requests and to share information

about co-productions, exchanging audio, help needed, help offered, competitions and much more.

The growth in membership confirms the need for connectivity of this global community of audio providers. The challenge is to activate the members to develop co-productions together, to exchange more regularly, and to think beyond their immediate listeners when producing programmes - so that other members can hear each other's voices and re-broadcast these voices to larger audiences worldwide.

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More: <http://www.oneworld.net/radio>

NEWS FROM CTO

Regulatory workshops in Africa

In Southern Africa, CTO is working with the Telecommunications Regulatory Authority of Southern Africa (TRASA) on the delivery of several week-long regulatory workshops. Recent events included a workshop on Internet Policy in Mozambique organised with the National Institute of Communications of Mozambique. Other BDO supported projects in Mozambique have included a four-day workshop on Provincial Access for provincial government planners and decision makers. This aim of this workshop was to equip provincial authorities with the insights and information resources they need to launch their own ICT strategy design processes in line with national ICT policy objectives.

Upcoming events in the SADC/TRASA region include the study and design of a regional human resource development strategy, which will be followed by the delivery of a stakeholder workshop to help discuss future policy in the region. Other planned events include the delivery of a workshop on Finance for Regulators, National Seminars for Regulatory Commissioners and a number of national stakeholder fora aiming to promote communications and understanding between the different sectors involved in ICTs.

In Eastern Africa, CTO has been working with the East African Regulatory Post and Telecommunication Organisation (EARPTO). One upcoming project in the region is a two-day seminar for Ethiopian policy-makers. The seminar will bring together around sixty decision-makers from Ministries in Ethiopia to discuss the issues surrounding national ICT policy-making in a rapidly changing global ICT environment.

Other BDO projects planned for Eastern Africa include the delivery of the policy and regulatory workshops, which were developed together with the ITU such as Introduction to regulation, Interconnection, and Costs, Tariffs and Pricing. In addition the CTO will be holding national stakeholder fora and a Seminar for Regulatory Commissioners in the region.

In Western Africa, CTO works with the recently formed West Africa Telecommunications Regulatory Authority (WATRA), to adapt and deliver the regulatory workshops that were piloted in Southern Africa last year.

In addition to these, CTO is a partner in a major USAID initiative in Southern Africa entitled the Network for Capacity Building and Knowledge Sharing for the Telecommunications Sector, more familiarly known as NetTel@Africa. This initiative is a programmatic response to the needs expressed by TRASA for advanced regulatory training in the rapidly evolving field of ICTs. Its aims are to develop standard training materials for delivery as part of post-graduate diploma and masters level qualifications in ICT regulation.

The network currently includes seven Southern African universities, the regional training centre Afralti, six US universities, the twelve regulatory bodies within the SADC/TRASA region, and a variety of resource partners including the ITU and FCC. The initiative will be piloted in Spring 2003 and full implementation will begin in Winter 2003. More details are at:

www.cbdd.wsu.edu/networks/nettelhome.html

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More: <http://www.cto.int>

eGovernment successes and failures

The IDPM and CTO eGovernment for Development Information Exchange project answers questions on results achieved by eGovernment projects. The first in a series of topics, the site presents a series of questions that eGovernment practitioners have asked. It also suggests answers developed through a mix of research at IDPM, research in local partner institutions, and discussions on the egov4dev email list.

Questions addressed include:

- What is e-government success and failure?
- How do I know if my e-government project is a success or a failure?
- Where can I find case examples of e-government success and failure?
- What is the impact of e-government failure?
- How common is e-government failure (and success)?

Behind all of this, the project is fostering a community and network whose lively discussions should interest many practitioners in this area.

More: <http://www.egov4dev.org/topic1.htm>

NEWS FROM PANOS

Louder voices: Strengthening developing country participation in international ICT decision-making

International decisions about information and communication technologies have far-reaching implications for developing countries. Yet developing countries are poorly represented when agendas are set and decisions made. CTO and Panos London suggest ways to give developing countries a louder voice in these processes.

More: www.panos.org.uk/ICT_decision_making.htm

NEWS FROM IICD

Propagating local development content

One of the strengths of new ICTs such as the Internet is the way they can help unlock distant expertise, knowledge and markets. However, this access – usually to foreign content with foreign perspectives – has its limitations. Easier access to globalised knowledge is fast turning us into ‘consumers’ of distant and potentially irrelevant information. More worrying perhaps, developing countries are being ‘invaded’ by foreign ideas and values that may undermine or overwhelm local cultural heritage and economic livelihoods. Commissioned by DFID, this report examines how local content in developing countries is created, adapted, and exchanged, and how it can be enhanced.

More: www.iicd.org

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TiCBolivia – ICTs working for farmers

In 2002, IICD started a roundtable process in Bolivia with support from CORDAID and SDC. The first step was a roundtable workshop with representatives of 18 NGOs, grass-roots groups, private organisations and the national government. The workshop focused on the introduction of ICTs to develop or improve access to information by agricultural producers. With the workshop and resulting projects, the TiCBolivia agriculture programme has become a major ICT element in Bolivia's agriculture sector.

The workshop summary contains recommendations for an ICT strategy in agriculture in Bolivia and 9 project ideas. A first project to develop an ICT policy for the agriculture sector has already begun. This project will assist in coordination of information exchange and ICT initiatives in the sector, with a focus on information services to small farmers. Eight other projects have almost completed formulation and are expected to start in early 2003. Each focuses on different types of information relevant to small farmers including land rights, public investment programmes, production methods, marketing information and ecological products.

To ensure farmers gain access to the information, part of the projects specialise in connecting organisations at international and national levels. Others ensure that communities are able to receive and communicate relevant information. At this level, the partners seek optimal combinations of advanced (Internet, multimedia) and traditional technologies (radio, bulletins).

The project partners also participated in a skills training in La Paz, conducted by IICD's local training partner Enbolivia.com. Participants were trained in strategic uses of ICTs in agriculture, saw examples similar to their own, learned basic and advanced IT skills, and developed prototypes of ICT applications to support the formulation of their projects.

Finally, the partners participated in a knowledge sharing event organised by TiCBolivia, including a seminar on e-commerce in the agriculture sector. Later this year, representatives of the project partners will participate in

a second event in the Netherlands to share experiences with partners working in agriculture from other countries where IICD is working.

More: www.iicd.org

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ICTs and national agricultural research systems - eDevelopment for the grassroots

This IICD and ISNAR project examines the applications of ICTs (broadly defined) to agricultural research (also broadly defined) in developing countries. Looking forward to 2010, the project explores the future of information and knowledge in developing country agricultural research. Specifically, how agricultural research institutes and systems in developing countries are using ICTs to generate, adapt, synthesize and disseminate useful information, and to support the efforts of their stakeholders in this area.

More: www.dgroups.org/groups/inars/

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iConnect Ghana launched

IICD's partners in Ghana have launched their own newsletter and website entitled iConnect Ghana. It is an online, offline and e-mail service designed to enable the rapid effective and efficient use of ICTs as a tool for Ghana's development. iConnect Ghana consists of a website and a quarterly newsletter, and is a joint venture of AITEC Ghana, IICD and IICD's local partners.

More: www.icconnectghana.org

iConnect Africa - ICTs at work

Launched at Bamako 2002 by the Economic Commission for Africa (ECA) and IICD, iConnect Africa aims to raise awareness in the wider African development community regarding the possibilities offered by ICTs in development. Now in its second issue, it reports on activities forming part of the Africa Information Society Initiative as well as those of the Building Digital Opportunities programme. iConnect Africa is published in French and English editions.

More: <http://www.uneca.org/aisi/icconnectafrica/>

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LEAP: evaluating the impact of information

LEAP IMPACT is a community of development people with a strong interest in the evaluation of information activities. Since it was set up in early 2001, the group held a seminar on evaluating agricultural information services in Bonn, compiled a substantial bibliography on this topic, and reviewed a draft manual entitled ‘Evaluating information: a letter to a project manager.’ The next workshop in Amsterdam in November 2002 will focus on smart evaluation tools.

LEAP IMPACT is a joint initiative of CTA, IICD, Bellanet, KIT, and GTZ.

More: <http://www.bellanet.org/leap/>

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DFID's ICT Knowledge and Research Projects

Each year, DFID's Infrastructure and Urban Development Department issues a call for Knowledge and Research (KaR) project proposals. It is intended that ICT KaR projects lead to a better understanding of the realistic potentials of ICTs and of how such technologies can contribute towards a more suitable pro-poor ICT policy framework. We report on some past and present projects.

Micro-Media and the poor

International development research and development projects consistently produce learning and knowledge that has the potential to greatly improve the lives of people living in poverty. However the question still remains: How often does this information and knowledge reach the people that it is intended for, and when it does, to what extent is it fully understood and applied? Is there also a risk that the accumulation of information within development organisations actually contributes to social inequality by concentrating power and influence - the opposite of what is intended?

This project investigates ways to strengthen the methods and means by which smaller development organisations access, process and share development information with the communities that they serve.

Main Outcomes

- To identify the best, and most innovative practices of community development organisations in collecting and sharing development messages.
- To understand the information and knowledge systems which operate in rural communities, and identify approaches that can strengthen knowledge systems.
- Develop a 'toolkit' for development organisations wishing to assess and improve their information and communication systems.

More: www.itdg.org

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E-commerce options for craft producers

The Internet has brought new opportunities for Third World craft producers to market their goods directly to Western customers (one-to-one marketing). But how are they to make the most of the new world of e-commerce, which requires new skills and infrastructures? For these producer groups, many of whom are run by women in rural 'information-poor' areas, away from the requisite technology, the advent of global e-commerce could be either a means of strengthening their business activities and livelihoods, or a means of marginalizing them further in the increasingly Internet-driven world economy.

So far, UK and USA fair trade organisations (e.g. Oxfam, Traidcraft etc.) act as intermediaries, buying, promoting and distributing craft goods. Peoplink (an Internet based non-profit organisation) is using e-commerce, but is still stocking goods centrally (in the USA).

E-commerce however allows producers anywhere in the world to make a direct link to their individual customers, distributing from their own country, saving on overheads, and allowing more profits to reach workers and their families. E-commerce also allows for new levels of customisation and new ways of collecting market data.

No fair trade producers or networks are currently utilising these new opportunities.

Main Conclusions

- Handicrafts are (generally) not repeat-products and therefore seem to be a very poor commercial option.
- The Alternative Trade Organisation (ATO) survivors are adapting and changing.
- ATOs are exploring other markets.

More:

www.gamos.demon.co.uk/Projects/Ecommerce/eccommerce.htm

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ICTs and the growth of peri-urban informal sectors enterprises

Studies have shown that access to information is a major constraint to Small and Medium-sized Enterprises (SMEs) growth in many developing countries. Market signals on business opportunities, customer trends and methods of organisation are not communicating themselves effectively to SMEs, who perform better in information-rich environments. Evidence also suggests that SMEs are willing to pay significant sums for relevant information where available.

Advances in communications technology have made Internet, fax and telephone facilities available in a growing number of towns in developing countries. These modern forms of communication are rarely used by small enterprises as business tools, yet they have the potential to significantly improve poor peoples access to business information. Investment in ICTs is critical to narrow the gap between developing and industrialised countries. But investments in infrastructure and hardware alone will not guarantee appropriate information for sustainable livelihoods.

Main Outcomes

- To understand technical, socio-economic, gender and market aspects of business information provision to SMEs using ICTs in conjunction with traditional downstream media channels with attention to: a) SME needs b) evaluation of existing technologies and channels c) constraints to further adoption d) potential impact and replicability.
- Develop and pilot a number of commercially viable and sustainable Business Development Service (BDS) products for SMEs based on their needs and ability to pay within the scope of available technologies, information sources and delivery mechanisms.
- Identify and strengthen dissemination pathways for new, information based BDS products.

More: <http://www.itcltd.com/itc.htm>

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Digital bridges for vocational and educational training

There has been a decline in donor support for Vocational and Education Training (VET) since the 1980's. The main criticism of VET was that it was generally poorly related to demands for skills among producers. It also tended to be biased towards particular sectors and groups. Recent research suggests ongoing reforms towards private sector VET with quality control by Government. It promotes demand driven responses in an enabling environment. Linking VET centres across national boundaries will support these reforms - targeting curriculum content to labour markets and encouraging innovation in the private sector. Many ICT projects focus on giving access to ICTs in order to learn ICT skills for use in the new urban economies. However there is a need to support basic skills for sustainable livelihoods in urban and rural settings. This project focuses on the dual role of ICTs to strengthen communication within the development sector, and livelihood content delivery. The proposed approach emphasises audiovisual content delivery to circumvent barriers of literacy and allows collaborative versioning into different languages.

Main Outcome

To develop a delivery model with shared, open access to content, using ICTs, both online and offline, for networking, collaboration and delivery.

More: www.big-world.org

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Innovative demand models for telecoms services

Developing countries are increasingly relying on commercial practices to provide the telecoms infrastructure needed for access to telephony and Internet. Strategies to promote this investment include the commercialisation and privatisation of parastatal telcos, supported by independent regulation. Governments, regulators and telcos are hampered by lack of understanding of demand, particularly in rural and low-income communities, and investment decisions tend to be based on incomplete market information, leading to sub-optimal provision of services to these areas. This inhibits the most effective infrastructure development and reduces the value of investment to disadvantaged groups and regions. However, examples of innovative approaches to service provision exist, and there is a need to learn the lessons from recent practice and to replicate innovative models where appropriate. Novel methods of service provision mean that it is possible to expand access at reduced cost. Exploring patterns of use of telecommunications services in marginal markets and demonstrating more realistic levels of demand will improve the quality of regulatory decision-making on access, assist public access providers in offering the most appropriate service.

Main Outcomes

- Analysis of existing demand models, innovative practice case studies, and market assessment approaches
- Analysis of potential mechanisms for marginal markets based on review and field data, validated by stakeholders
- Multiple reports targeted at various sectors

- Stakeholder dialogue on pro-poor policy amendments, promoting poverty focused regulatory environment and market opportunities.

More: www.gamos.org

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Distance support and technical training for poor rural women

Poor women are disadvantaged in accessing technical support by their illiteracy and lack of mobility. Information about technical innovation is often only in one direction, ignoring the valuable contribution marginalized people themselves could make to developing appropriate programmes of instruction and support. ICTs offer opportunities for accessibility, for direct interaction, creating dialogue between technical resource staff and those whose lives they could influence. An approach which strengthens women's existing knowledge and innovation skills is a good starting point to developing a system of support from a central institutional base using various participatory techniques.

Main Outcomes

- Poor rural women have access to technical support and relevant information. They have increased self-confidence, effective communication and improved status.
- Effective, appropriate and sustainable distance support mechanisms are established within TTTI, Chandigarh and within Steps / ITDG in Bangladesh.
- Techniques for interactive, participatory training within villages are developed. Technical teaching and research is made relevant to poor people.
- Techniques for interactive training at village level developed in different locations in India and Bangladesh will be relevant for application in other contexts.

More: www.itdg.org

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Community telecentres for urban youth

Young people in the poor urban communities of Soweto and Mexico City have little or no access to appropriate IT skills training that is increasingly required in business, and to access local information and services. Two Big World partners, Youth Alive in Soweto and Armonia Urban Transformation Centre in Mexico City, currently run vocational and skills training for young people from urban areas. They have requested technical assistance to pilot a simple community telecentre model, which would enhance the existing vocational training, and have wider community benefits in the areas of providing users with access to civic and government information, community-building and networking. The research recognises that telecentres in these areas need to be ultimately self-supporting and sustainable, and so includes an evaluation of their income-generating potential.

Main Outcome

Evaluate the introduction of community telecentres in Soweto and Mexico City, and their impact on their communities.

More: www.big-world.org

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Researching ICTs in African schools

Despite often low connectivity and the high price of computers, we are seeing an upsurge in the use of information and communication technologies in African schools. SchoolNet Africa (SNA) is making sure that tomorrow's decisions and choices are informed by research and learning on the ground.

SNA's research aims to demonstrate the learning and developmental effects of ICTs in Africa's schools, to establish a base of African research experts on ICTs in African schools, to promote the developmental dimension of ICT policy processes by generating knowledge on affordability, accessibility and sustainability of the use of ICTs in education-deprived communities, and to broaden knowledge and understanding of ways to bridge the digital divide in education in Africa.

Research Principles

Implemented by teams located across Africa, the research programme is guided by 6 main principles:

1. A commitment to capacity building – for the participants and other stakeholders engaged in the research.
2. The full participation of various stakeholders to encourage widespread ownership of the knowledge generation process.
3. Gender equality and the empowerment of women.
4. Widespread dissemination and use of research findings in Africa.
5. The development of an African research network or community, including from universities.
6. Partnerships with the international development and research community.

Research Projects

Some projects have already started, others are about to start. Projects in the portfolio include:

- Affordable Bandwidth for African Schools - research support to a campaign to incorporate an "e-rate" in universal service policies of selected African countries [September 2002 – December 2003].
- The effects of ICT-based learning - investigating the learning opportunities and outcomes of e-learning by

African school-based learners and educators [June 2002 – June 2003].

- Longitudinal study on the effects of ICTs in African schools - tracking the progress of selected learners, educators and schools over a multi-year period [November 2002 – December 2005].
- SchoolNet Best Practices - investigating sustainability models for school networking from developing countries [April 2002 – February 2004].
- Baseline scan on school networking in Africa – the current situation [February – October 2002].

Other projects are looking into languages in schools, the use of open source in African schools, guidelines for refurbishing computers and the use of refurbished computers, education portals, professional development for ICT educators, costs and tariffs of ICTs in education, and wireless options.

Assessing the Results

In the first half of 2003, the findings of these research projects will be debated at a workshop on ICTs in African Schools. With streams for both practitioners and policymakers, representatives will attend from the thirty countries in Africa where 'schoolnets' - groups or organisations promoting learning and teaching through the use of ICTs – are active.

SchoolNet Africa is an independent pan-African non-government organisation. It promotes learning and teaching through the use of information and communication technologies (ICTs). Its research activities are developed in association with the International Institute for Communication and Development (IICD), the United Nations Economic Commission for Africa (UNECA), the Open Society Institute, and the Commonwealth of Learning.

More: www.schoolnet africa.net

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