

WORKSHOP
Perspectives on North/South
Research partnerships for ICT in Education
21st April, 2009
Irish Aid Centre, Dublin, Ireland

Background

Throughout the world, governments, institutions and practitioners are exploring the potential of Information and Communication Technologies (ICTs) for effective learning and increasing education outreach. ICT in education presents countries with great opportunities, and at the same time considerable challenges with regard to cost, sustainability, optimal use and making teaching and learning meaningful for students.

Many policy makers, planners, managers, and practitioners still lack experience, knowledge, and judgment capabilities in the systems, methods, and media involved in what is essentially an emerging field particularly with regard to the integration of the newer ICT technologies into education systems. Many ICT initiatives are experimental, problematic, or new to the providers. Research is critically important to provide systematic, comprehensive, rigorous and on-going inquiry into the opportunities and pre-conditions which could facilitate the effective integration and use of ICTs in education systems, as well as the challenges and barriers which could inhibit or jeopardise effective implementation.

On the 21st April the Global e-Schools and Communities Initiative (GeSCI) hosted a north/south research partnerships workshop gathering more than 50 ICT-in-education representatives from research partnerships, networks, associations and funding agencies that are linked to GeSCI's donor and partner countries. The strategic objective of the workshop was to examine existing experiences of partnerships in the area of ICT in Education research in general and the potential opportunities for developing / enhancing research efforts that are relevant to the issues and challenges of GeSCI's partner countries in the developing world.

The specific objectives of the workshop were:

- To identify emerging issues, challenges and demand areas in ICT4E research in development contexts
- To share experiences on existing higher education and university partnership/ network research models/projects in ICT4E
- To initiate dialogue and reflection on the potential opportunities for north/south research partnership in ICT4E

Keynote speeches, moderated by the chair of GeSCI Mr. Brendan Touhy, were made by representatives from Irish Aid and the Ministry of Foreign Affairs Finland. Thomas Tichelmann of Irish Aid noted that in challenging times and contracting budgets there is a new emphasis on the need for sound knowledge and research to underpin development activities. Pertti Anttinen from the Ministry of Foreign Affairs Finland, noted the role of research to bridge the gap between developed and developing worlds and the value that GeSCI can add to unfocused efforts in ICT in Education on a basis of equal partnerships for research and dialogue.

The [workshop programme](#) included five sessions focussing on the following areas: ICT in education research in a development context; identifying research needs in ICT4E in SSA; sharing ICT4E research models and projects; interfacing ICT4E research, policy and practice; moving towards north/south research partnerships in ICTs in Education. Summaries of each of these sessions in the following section demonstrate the scope of issues arising from reflections on the subject of north/south research partnerships with concrete suggestions for GeSCI to consider.

Summaries of Workshop Sessions

Session 1: “ICT in Education Research in a Development Context”

Moderator: Ms. Mary Hooker (GeSCI Dublin, Ireland)

Speakers: Dr. Jyrki Pulkkinen (GeSCI Dublin, Ireland)
Dr. Patti Swarts (GeSCI Nairobi, Kenya)

Jyrki Pulkkinen, CEO, GeSCI, spoke on the theme of [Connecting Research to Policy Making and Development](#). He outlined the context of GeSCI's work in a global arena where the gap is widening between developing countries and the industrialized world due to lower investments in ICT, education and innovation processes in developing countries. GeSCI works with MoEs to empower their policy making and strategy capacity for ICT in Education with knowledge building and research underpinning its advisory services and products. He considered that the challenge for GeSCI is to broker the connection between research, policy making and educational development. The workshop convening of researchers and networks from north and south would offer an opportunity to brainstorm ideas and opportunities for joint research projects, models for integrating research to policy and development of capacities.

Patti Swarts, Manager Africa Regional Programme, GeSCI, spoke on [GeSCI's thematic focus areas and meta-review of ICT in Education Research](#). She noted that ICT is proving to be a disruptive technology in education systems where 19th century paradigms of bureaucratic factory modes of provision still dominate. The negative impact of the technology disruption is evident in the preliminary findings of the meta-review research (Le Baron and Mc Donagh, 2009) commissioned by GeSCI, where massive technology investments show paltry evidence of success and little in the way of innovation is filtering down to classroom practice. She argued that what is needed is the bridging of the gap between research, policy and practice as well as transformational research models and strategies to build sustainable capacities and capabilities in developing countries to develop their own solutions.

The moderator opened the dialogue to the floor where the following points were raised and discussed:

- ICT in Education for citizenship can be harnessed to promote cultural understanding and dialogue between school communities north and south.
- The paradigm shift in education systems in developing countries has been triggered by EFA driven massification of access which is pushing governments to seek innovatory solutions.
- The indicators measuring the north/south gap between the worlds of knowledge and money are based on GDP per capita metrics.

Session 2 “Identifying Research Needs in ICT4E in SSA”

Moderator: Dr. Margaret Farren (Dublin City University)

Panellists: Professor Jane Grimson (Irish-African Partnership for Research Capacity Building)
Professor Alain Senteni (Hamdan Bin Mohammed e-University, Dubai, UAE)
Mr. Alex Twinomugisha (GeSCI Nairobi, Kenya)

Jane Grimson, Professor, Trinity College Dublin, Co-chair Steering Committee of the Irish-African Partnership for Research Capacity Building (IAPRCB) Steering Committee, Ireland, informed the audience of the IAPRCB unique collaboration bringing nine universities of Ireland (north/south) in an ‘off the island’ initiative with four universities in SSA. Development research she noted tended to be fragmented and individualized with little linkage to national strategies and priorities. The IAPRCB research partnership has focused on the use of Foresight and Futures Research techniques to identify and build scenarios around common areas and issues of change over the next 10 years in Health, Agriculture and Education. She reflected that Foresight thinking is conducive to GeSCI’s innovative approach for addressing ICT in Education issues in the longer term – a technique for thinking more radically around the ‘disruptive’ forces of technology using alternative scenarios to analyze the opportunities and barriers these forces present - and for planning a way forward that builds on the former and identifies means to overcome the latter.

Alain Senteni, Professor, School of e-Education, Hamdan Bin Mohammed e-University, Dubai UAE, Co-chair of the Education Commission, World Information Technology Forum (WITFOR), presented a [systems overview](#) of the tensions between traditional and activity based learning; as in top-down formally accredited knowledge transmission systems versus bottom-up informally networked knowledge generation systems fuelled by a new generation of web 2.0 social technologies. The issues to address in the formal/informal teaching and learning gap revolve around quality assurance, accreditation, new pedagogy and empowerment. Innovation and development he argued would involve intentional redesign of educational systems that would allow the Trojan horse of ‘disruption’ to penetrate and challenge the status quo of power hierarchies, values, beliefs and practices in order to bring about double loop reflexive learning for deeper, more sustainable and transformational change.

Alex Twinomugisha, Africa Regional Director, GeSCI, spoke of the many challenges for ICT integration in African education systems based on his experiences both with GeSCI and formally with the African Virtual University (AVU). The proliferation of ICT initiatives has produced a confused landscape of small pilots, fragmentation and costly mistakes in what are under-resourced environments. He reiterated the importance of research for ICT development and lamented the aid focus primarily on the primary education sector to the detriment of building capacity for research in the HEI sector. He drew attention to the prohibitive costs to the

University sector for ICT connectivity, with an average university in Africa footing a bill fifty times that of an average home in the US for the same bandwidth.

The moderator opened the discussion to the plenary where the following issues were raised:

- Transformation in education is dependent primarily on curriculum and assessment systems which are the determinators and drivers of educational change and competence development.
- Systems have an in-built conservative reflex for survival purposes which requires systemic disruption or contradiction for questioning /dismantling the traditional position in order to reassemble positions more responsive to the needs for 21st Century learning.

The moderator, concluded the session with the observation that envisioning the future can also include emerging thinking on the 'requiem' scenario which forces us to relinquish the eternity or immortal mindset from our framework and plan for change now as if this were the 'last day'. This is a scenario designed to provoke a deeper reflection on change requirements related to global issues of environmental destruction, the growing divide between the rich and poor, and escalating societal unrest around the world.

Session 3 “Sharing ICT4E Research Models and Projects”

Moderator: Dr. Deirdre Butler (St. Patrick's College Drumcondra, Dublin City University)

Speakers: Dr. Ritva Engestrom, (University of Helsinki, Finland)
Mr. Bengt Nykvist (Mid-Sweden University, Sweden)
Dr. Jabiri Bakiri, (Open University of Tanzania, Tanzania)
Mr. Nigel Metcalfe (National University of Ireland, Maynooth, Ireland)
Ms. Angela Rickard (National University of Ireland, Maynooth, Ireland)

Ritva Engestrom, Senior Researcher, Partnership Network of the Universities of Helsinki and Botswana, gave a presentation on [Expansive School Transformation in the SADC Region](#). The research project is centred on a Development Work Research (DWR) design to engage teachers, educators, MoE officials, researchers in inter-agency, cross-cultural, collective reflection that empowers stakeholders to develop and experiment with their own plans for integrating ICT in educational settings. In the complicated world of technology integration, she considered that there is a requirement for paradigmatic tools to enable rethinking on the issues and analysis of the historical contradictions in education systems, and to foster the prima voices of practitioners in open-ended learning processes.

Bengt Nykvist, Senior Researcher Mid-Sweden University, and **Jabiri Bakari**, Senior Researcher, Open University of Tanzania (OUT) gave a joint presentation on [ICT Based In-service for Secondary School Teachers](#). The massification of expanding primary and secondary systems in the global south presents on-going challenges for recruitment of teachers with adequate capacity. While blended learning solutions have

been developed to support on-going professional development with online /face-to-face support, the OUT programme had registered a drop-out rate of 50% due to connectivity issues related to availability (power and bandwidth), affordability and knowledge of PCs particularly in deep rural zones. The requirement was to address the problem with technology that can work - as in utilizing the existing infrastructure and familiar technology of mobile telephony. Using Moodle to set up content channels on memory cards that link to global information networks, the focus has been on communication conduits such as SMS to connect teachers and students in interactive, collaborative and flexible learning 'on the move'.

Angela Rickard, and **Nigel Metcalfe**, Senior Researchers, [Dissolving Boundaries through ICT Project](#) of the National University of Ireland, Maynooth and the University of Ulster, Northern Ireland. The project was set up as a north/south educational programme to promote mutual understanding. The embedding of ICT as a tool for interactive communication across boundary lines has evolved into dynamic cross-curricular applications in project activities linking thousands of pupils and teachers north and south in online wikis/conferencing and face to face forums annually. This is a project which combines a political agenda for north south exchange with a cutting edge ICT in Education agenda for constructivist models of learning promoting 'learning by doing' with cross border collaboration.

The moderator opened the discussion to the plenary where the following salient points were raised:

- The three model presentations of research partnerships illustrate the shift of research from the high ground of academia to the co-construction of knowledge involving practitioners at classroom level.
- Do the models actually influence change in education systems? Has there not been a proliferation of such models since the advent of ICT in Education over the past twenty years? What difference do the research models contribute to policy and practice?

The moderator concluded the session with the observation that the three models represented pertinent examples of research applications that both identify very real challenges in educational practice and offer a means for tackling them through building capability to both use and do research.

Session 4: “Interfacing ICT4E Research, Policy and Practice”

Moderator: Dr. Conor Galvin (University College Dublin, Ireland)

Panelists: Mr. Jerome Morrissey (National Centre for Technology in Education, Ireland)
Mr. Brendan Tuohy (Chair GeSCI Dublin, Ireland)
Mr. Matti Sinko (UNIPID, Finland)
Dr. Jacques Boilat (Swiss Universities)
Ms. Ashish Garg (Asia Regional Coordinator, GeSCI India)

The moderator, following on from the morning’s work, shifted the workshop dynamic from a presentation focus to a more dialogical approach. He gave a short [scene setting exercise](#) in which he explored elephants in rooms as in the extraordinary ICT-Education disconnects that we don’t feel comfortable with – disconnects between policy making and research, and the particular challenge in education settings with the emergence of ubiquitous computing and web 2.0 modalities of learning. He explored briefly the nature and intent of the major players in the ICT4E arena and the various forces driving various agendas forward.

He approached the task of structuring a panel/ floor interactive discussion by way of four screen questions, each of which he opened to one or two panel members for initial response and then moved the conversation to the floor.

Question 1: Things that work...

- There were a number of very different and very geographically diverse projects identified that fitted the description of initiatives ‘that work’ in terms of ICT usage in education.
- There were however serious issues raised around continuity and sustainability where many such project interventions are concerned.
- It proved difficult to identify any examples of sustained ICT4E where research, policy and good practice were successfully combined.
- The idea of ‘brokerage’ was advocated as a useful means of connecting leading edge practice and policy making.

Question 2: What ‘education innovation’ looks like...

- There was a lack of clarity as to what educational innovation should look like, while there was general agreement about the usefulness of keeping on looking for it!
- Different conceptual understandings of innovation were discussed; industrial models versus educative models, the linkage between innovation and ICT at both general and field-specific level, and the policy implications of buying-into one model as opposed to another.
- Several speakers emphasised the moral and values aspects of education – and the challenge of retaining these in a world where economic ideals were more often emphasised.

Question 3: Policy making as practice...

- Two issues were discussed: the value and utility of networks and lessons form policy work North and South.
- There was agreement that policy is a complex and layered process, all too often misunderstood or only partially understood by those encountering the process for the first or at least for the first significant time.
- The task of identifying who the policy makers are and how and why they operate as they do was achieved to some extent.
- There was agreement that teachers and other field practitioners should be placed at the rightful heart of the process.
- Some of the more general problems and benefits of operating in and through networks for change were unpacked.

Question 4: Networks and partnerships...

- There was further exploration of the contributions and opportunities to participate through research networks or partnerships in ICT4E.
- The primacy of *really* understanding the practice context and the context right to the school level of the proposed intervention – with all its myriad challenges and opportunities – was emphasised.
- The various ways that governments and NGOs can contribute to framing and supporting policy for intervention and subsequent action were explored.
- The role of the academy was emphasised – in terms of providing policy research expertise, focussed assistance where requested and in honest and constructive policy evaluation that focuses on lessons-learnt rather than target gain.

Session 5 “Towards North/South research partnerships in ICT in Education”

Moderator: Mr. Brendan Tangney, (Trinity College, Dublin)

Panelists: Dr. Paul Thabano Tapela Nleya (University of Botswana, Botswana)
Dr. Roger Austin (University of Ulster, Northern Ireland)
Professor Brian Hudson (Umea University, Sweden)
Dr. Afzal Sher (SPIDER, Sweden)

The moderator continued with the dialogical approach structuring a panel/ floor interactive discussion that raised the following significant issues:

- We know what the problems are but can we do about them?
- The evidence that the huge investment in ICT in the North was beneficial is limited at best so why should the South bother?
- Any serious thinking about integrating ICT into the Schools leads to a call for systemic change to curriculum, assessment, teaching & learning strategies etc. Is this correct and if so is radically changing the school systems in Southern countries realistic?
- How much caution do we need to exercise in following the “Knowledge Economy” rhetoric?
- What next?

Session 6 Summary and Closing Session

Moderator: Ms. Niamh Brannigan, (GeSCI, Dublin)

GeSCI Team: Ms. Mary Hooker (GeSCI Dublin)
Mr. Alex Twinomugisha (GeSCI Nairobi)
Dr. Jyrki Pulkkinen (GeSCI Dublin)

Mary Hooker, Research Manager, GeSCI, drew on various threads from the morning discourse and presentations on 'ICT4E research needs, issues and models', to summarize the challenges and opportunities presented therein; in particular the discussions around the challenge of technology infusion in education systems stuck in knowledge transmission modes and operationalized in the isolationist culture of the classroom unit. The disruptive tension that technology provokes could be key to connecting policy, practice and research communities in reflexive commentary and debate on the emergent agenda for ICT-integration in education systems. The Foresight techniques presented offer a means to think more radically about 'disruption'. The tension between formal traditional and informal activity based learning systems analyzed reflect a central tension that education systems grapple with – how to balance the improvement of learning in formal accredited systems with more radical dynamics for improving learning through informal new technology enhanced social networking systems. The prototypes in the research models presented can challenge the ecosystem of the educational environment to relinquish its protective cocoon for preserving the status quo and nurture collective rethinking for new modalities through experimental, experiential and ultimately expansive learning.

Conor Galvin, University College Dublin, noted that while there was no clear outcome from the afternoon forum discussion on 'interfacing ICT4E policy, research and practice', there was the opportunity through the workshop conversation – both light hearted and serious – to question in slightly mischievous terms the difference between 'the good guys' and 'the bad guys' in policy and research terms. He considered that the workshop participants definitely belong to the 'good guy' team – a pertinent observation for setting up 'good guy' research partnerships in workshop follow-up.

Brendan Tangney, Trinity College Dublin, in his summary of the final forum discussion on 'moving towards ICT4E partnerships for research' theme, noted the following points:

1. This is a complicated problem.
2. There are very many different perspectives.
3. A lot is known from research in the North over the past 20 years as to what does not work and why. There is also a lot of knowledge on which things do work and under what circumstances. Given this it would be tragic if the South made the same mistakes as we did.
4. One needs to know quite clearly what the problem being addressed is so that an appropriate solution can be devised. In the extreme case is ICT being used to help overcome a serious local logistic

problem, e.g. lack of access to material, or is the entire education system of a country being re-designed to meet some clear objectives!

Alex Twinomugisha, Africa Regional Director, GeSCI, felt that while the workshop may have yielded no clear consensus on the way forward, it provoked reflection on the issues. Some of the recurrent themes which emerged throughout the workshop discourse included the following:

- There is an increasing demand for evidence-based policy making;
- This demand makes research all the more imperative;
- A major obstacle preventing research from influencing policy is the lack of interaction and 'common language' between researchers, policy makers and practitioners;
- GeSCI has a role to play as convener, aligning the actions of researchers, policy makers and practitioners

Jyrki Pulkkinen, CEO GeSCI, considered that the North/South ICT4E research seminar was an important new opening for GeSCI. GeSCI's research facilitation aims to connect the research community directly to GeSCI's knowledge sharing and building activities aligned to its thematic workstreams. GeSCI is interested in working with partners on areas of common interest to build a bridge 'between research, policy making and development'. From the workshop process GeSCI will engage with partners and networks to deepen existing partnerships and to develop new ones in order to meet the aims of GeSCI's research agenda and organizational strategy for a Knowledge Society for All.

Evening cocktail: The workshop ended with cocktail refreshments for all of the participants generously provided by the Finnish Ambassador Seppo Kauppila.

Supplementary Literature

Hallissey, M. 2009. Poster: What should ICT Integration look like in a 21st Century education system? [Online]. Available from GeSCI at: http://www.gesci.org/old/files/docman/Poster_ICT_Integration.doc [Accessed 7 May 2009].

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