JUST IN TIME SUPPORT FOR EDUCATIONAL LEADERSHIP

Project proposal

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Abstract: In the World Summit on the Information Society we recognise four worlds: the technologically advanced first world; countries in transition; third world countries with the biggest challenges; a fourth world within all those regions and nations: the poor side of the digital divide. A comprehensive synthesis of research into Information and Communication Technologies (ICT) in education produced to inform the World Summit on the Information Society provides a cautious appraisal of the value of ICT for education (Davis & Carlsen, this volume). This synthesis of research into ICT in education also questions the transfer of research from the first world into more challenging circumstances. The question is: "How can capacity be created for mentoring on ICT in education?" This project aims to create the infrastructure to facilitate networking between graduate students and leaders of their home regions. Through such ICT-enabled networks students studying abroad who gains skill and knowledge with ICT in education could provide the "just in time" ICT mentoring that a leader in their home region needs.

Key words: capacity building, educational leaders, graduate students, mentoring, networking, research, transfer

INTRODUCTION

In December 2003 as we meet in Geneva for the World Summit on the Information Society we recognise four worlds:

1. The technologically advanced first world with the highest GDP;
2. Countries in transition;
3. The third world with the biggest challenges;
4. A fourth world within all those regions and nations of the disenfranchised – also recognised as the poor side of the digital divide.

A comprehensive synthesis of research into Information and Communication Technologies (ICT) in education, produced to inform the World Summit on the Information Society, provides a cautious appraisal of the value of ICT for education (Davis & Carlsen; this volume). This synthesis of research into ICT in education also questions the transfer of research from the first world into more challenging circumstances. Essentially the synthesis recognises that the educational gains related to the application of ICT require thoughtful systemic planning and application of ICT. Positive results from the application of ICT in education appear to require the following conditions: teachers with deep understanding of pedagogical application of ICT in education, with good access for themselves and their students to educationally relevant ICT both in school and outside school. Without this pervasive application of ICT the potential gains from investment of ICT for educational benefits are fragile and may even be negative (thus working against education). However, we have relatively little research and guidance for good practice beyond the first world and research in other contexts needs to be promoted. Research and development in low income regions is also likely to benefit the fourth world, reducing the digital divide within high income countries. There is therefore an urgent need for critically aware and culturally sensitive approach to planning ICT in education outside the first world accompanied by extensive support and mentoring where possible.

We also recognise that the information society depends on ICT and that engagement for all populations requires skills with and knowledge of ICT. Relatively few leaders outside the first world have this experience, although many do have an appreciation of the concepts and the means to support their knowledge. They have many additional challenges in the leadership of their regions, cultures and society. Essentially they need ‘just in time’ support to make sense of ICT in education as they plan for it. But how is that to occur? One theme of evidence from research into ICT in education is secure; access to education can be extended through ICT. Distance education can be

enhanced through ICT. That access could also provide leaders and policy makers with appropriate knowledge and mentoring. Then the question becomes: How can capacity be created for mentoring on ICT in education?

Many of the cleverest people from challenged regions use education to improve their circumstances. They work to gain an advanced education often with financial support from government agencies; unfortunately this often leads to a “brain drain.” Clever young people who study abroad often do not return to their home region despite their original intent. Often the return may be too challenging and these “emigrants” do not have the social networks to enable them to fit back into their societies where their education may be put to work effectively. The problems of reintegrating after study abroad are well documented. ICT could help these clever postgraduate students studying abroad to be of service to their home regions during their studies. The knowledge gained through reciprocal-mentoring of leaders and the related social networks created during such a process could also help these clever people return home and thus decrease the brain drain.

This project aims to create the infrastructure to facilitate networking between graduate students and leaders of their home regions. Through such ICT-enabled networks students studying abroad who gains skill and knowledge with ICT in education could provide the “just in time” ICT mentoring that a leader in their home region needs. The successful strategy of reciprocal mentoring developed by ISU Centre for Technology in Learning and Teaching to develop ICT in teacher education in the USA (Chaung, Thompson & Schmidt 2003) would be further developed to prepare exemplary ICT-teacher education for contexts in other parts of the world.

PROJECT AIMS

- Just in time support for leaders of ICT in education;
- Reduction of brain drain into first world;
- Development and research of ICT in education to develop good practice for the second and third world, plus the digital divide (the fourth world).

KEY PRINCIPLES

- Leaders of teacher education and of curriculum development need to plan with knowledge of ICT in education (see for example UNESCO, 2002, planning guide on *ICT in Teacher Education*).

- Reciprocal mentoring of leaders by students studying abroad who have gained skills and knowledge of ICT in education could provide just in time mentoring with support from their advisors.
- Growth of ICT in education will be best developed using ecological principles building capacity with social systems that start from those existing today.
- Good practice and research in education is context and culture sensitive because ICT must be applied to serve educational aims.

NEEDS ADDRESSES

- Planning for ICT in education in second, third and fourth worlds;
- Curriculum and teacher development in relation to ICT appropriate to regions and cultures;
- Decrease of the ‘brain drain’ with study abroad.

PLAN OF ACTIVITIES

Development of a detailed action plan and its evaluation. Development is to be phased, starting with pilot, moving to medium phase, and finally scaling up. Within each phase:

- Recruitment and detailed strategy development;
- Set up learning pairs of leader and graduate student, ICT infrastructure and material (adaptation of existing materials already offered, see below);
- Reciprocal mentoring takes place;
- Participant research supported by experts alongside;
- Evaluation and setting up progression plan;
- Evaluation of this phase;
- Dissemination of results alongside these activities;
- Progression to next phase.

EXPECTED OUTCOMES

- Informed leadership working together with appropriate support from expertise in first world;
- Plans and strategies for ICT in education appropriate to specific regions and cultures;

- Better planning and retention of the diversity of education and other cultural aspects in the Information Society;
- Redesign of educational research in ICT in education to include many more dimensions related to first, second, third and fourth worlds and their many diverse cultures.

CRITICAL SUCCESS FACTORS

Recruitment of participants for each phase. For example, first phase would recruit approximately five of the following:

- Leaders in second and/or third world;
- Doctoral students from that region and culture;
- Educational organisations that support those doctoral student;
- Researchers to support accompanying research (may be the same as above).

Also:

- Project management, leadership and evaluation (formative and summative). This could occur through Iowa State University Center for Technology in Learning and Teaching and/or the Institute of Education, University of London.
- Funding to support this project and its growth, possibly including specific student grants.
- Acknowledgement of the potential value and support from agencies such as UNESCO.
- Multinational support, such as Cisco and/or other ICT industry.
- Political will to promote the proposed collaboration across these generations.
- Support from research and educational communities, possibly facilitated by early dissemination at International Federation of Information Processing at WCCE'05 in South Africa.

SCIENTIFIC RESULTS

- A comprehensive review of research that becomes applicable to more regions and cultures in the world;
- Systemic educational research world wide, for the first time;
- Networks that link policy makers with researchers in ICT in education.

RESOURCES

New resources

A comprehensive grant to establish the pilot phase described above, possibly from agencies such as the World Bank.

Scholarship grants for doctoral students specifically related to this project.

Existing resources offered to the project:

- Institutional commitment from Iowa State University CTLT and its doctoral program by Niki Davis (Director and Professor) including potential commitment from students from Turkey, Malaysia, China, Ukraine, Jamaica, Colombia etc. Also in Institute of Education, London potential commitment from students from Chile and Brazil.
- Modules in distance learning via the web for Virtual University of Finland through Helsinki University, Finland [<http://www.edu.helsinki.fi/iqform/>].
- Modules for administrators' education from Schoeny (2003) and the University of Virginia Center for Technology and Teacher Education.
- Potential links with ISTE standards for administrators [<http://www.iste.org/nets>] and the international committee of the Society of Information Technology for Teacher Education [<http://www.aace.org/site>].
- Human networking support from UNESCO Institute for Information Technologies in Education, Moscow. [<http://www.iite.ru>].

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BIOGRAPHY

Niki Davis is Director of Iowa State University Center of Technology in Learning where she leads the graduate program in Curriculum and Instructional Technology that is well known for its emphasis in teacher education. She also holds a Chair in ICT in Education at the Institute of Education, University of London, where she is a member of the London Knowledge Lab. Before this she held a chair in Educational Telematics in the University of Exeter in the UK where she set up the Telematics Centre.

Niki has researched information technologies extensively, particularly in teacher education and in flexible and distance learning. She is currently the President of the international Society of Information Technology in Teacher Education and Chair of the International Federation of Information Processing Technical Committee 3 on Education's Working Group on Research. She is also an invited expert of UNESCO on ICT teacher education.