

Highlight: Mobile Learning

Mobile learning and life skills

Ichiro Miyazawa, UNESCO Programme Specialist, stresses out three main approaches in supporting youth to obtain core life skills and prepare them for the challenges in a globalized world.

SMS education in Pakistan

This article takes a look at an interesting set of inter-related pilot projects on mobile learning that haven't yet received much attention internationally.

News & Events

TIGA awards celebrate 'ICT for Education' projects at eLearning Africa

The second leg of the 2011 Technology in Government Awards (TIGA) in the 'ICT in Education' category were celebrated at a high-profile event end of May during the eLearning Africa Conference in Tanzania. The awards were given in recognition of initiatives aimed at harnessing ICTs for education and training in Africa.

Harnessing ICTs to alleviate poverty

The strategic use of ICTs can accelerate the acquisition of knowledge and the provision of basic services that enhances lives and help to reduce poverty. Overcoming the challenges and seizing the opportunities offered by ICTs was the main subject of discussion at a special session of the United Nations Group on the Information Society (UNGIS), held during the Fourth United Nations Conference on the Least Developed Countries.

Bangladeshi teachers to lead content development

30,000 teachers in Bangladesh are poised to lead content development with the initiation of the Access to Information (A2I) Programme of the Prime Minister's Office. In secondary schools across the country, teachers are developing multimedia content for general subjects for classroom use.

Rural schools connected to ICT in southern Sri Lanka

International Telecommunication Union (ITU) and the Telecom Regulatory Commission of Sri Lanka (TRCSL) have inaugurated a project to connect 25 schools in Akuressa, Southern Province of Sri Lanka. Under the "Connect a School, Connect a Community" initiative, ICT tools such as computers and printers as well as Internet connectivity will be provided.

WSIS online debate: More research on impact of mobile phones for development needed

UNESCO's World Summit on the Information Society (WSIS) Platform hosted an online debate from 11 April to 2 May and attracted over 2000 experts around the world. This debate was concerned with the impact of mobile telephony on social and economic development. Moderator David Souter emphasized the needs of more research on this topic.

Information technology skills will boost women's participation in crucial sector – UN

Greater efforts to support girls and young women to acquire skills in ICTs could help address projected shortages of manpower in those professions, the United Nations telecommunications agency stressed out on 28 April, marking the first "Girls in ICT Day."

9th Biannual International Computer Supported Collaborative Learning (CSCL) Conference

On 4-8 July, the 9th international CSCL conference will be held in Hong Kong. Organized by the International Society of the Learning Sciences (ISLS) and the Centre for Information Technology in Education of The University of Hong Kong, the conference will hopefully enhance recognition to in the field of computer supported collaborative learning.

Programmes & Projects

Mobile and Immersive Learning for Literacy in Emerging Economies (MILLEE)

This project develops mobile phone applications that enable children in the developing world to acquire language literacy in immersive, game-like environments. MILLEE aims to make localized language learning resources more accessible to underprivileged children, at times and places that are more convenient than schools. After more than 10 rounds of field studies in the past 6 years, they are scaling up pilots in India and elsewhere.

Resources

UNESCO launches new global ICT in Education website

UNESCO is launching a new website to provide up-to-date information on ICT in Education. The intersectoral website pools the resources of UNESCO's sectors, institutes, field offices and partners to present an indexed gateway to a wealth of ICT in Education resources.

A pedagogical framework for mobile learning: Categorizing educational applications of mobile technologies into four types

In this paper, the author, [name], compares mobile learning (m-learning) with electronic learning (e-learning) and ubiquitous learning (u-learning) and describes the technological attributes and pedagogical affordances of mobile learning presented in previous studies.

Inter-agency network on Education Simulation Models (ESM)

This web portal aims to facilitate sharing experiences and expertise in education simulation models (ESM). It is compiled and managed by the Task Team on Education Simulation Models (TTESM) and housed by UNESCO. The INSEM database holds multiple ESM linked to forum topics, learning resources, and can be searched by country, scope of utilization, and scope of projection.

Teachtoday – living with technology

Teachtoday is a technology-focused website that supports the safe use of technology in the classroom. It is targeting teachers, administrators, and other members of the school workforce and contains lesson plans, tutorials, news stories, student advice, case studies, and general information about technology in education.

Microsoft Mathematics 4.0

Microsoft Mathematics is educational software designed by Microsoft to help students learn, visualize and understand mathematical concepts. Subjects such as algebra, geometry, calculus, physics and chemistry are covered in this program.

Afghan LIFE website

The Literacy Initiative for Empowerment (LIFE) seeks to empower people, especially rural women and girls, who have inadequate literacy skills and competencies to fully participate in society. As a leading agency of LIFE, UNESCO Kabul in collaboration with the Literacy Department and LIFE partners in Afghanistan has launched the new LIFE Afghanistan website.

Highlight: Mobile Learning

Mobile learning and life skills

I believe that core parts of life skills are about keeping confidence, creating questions to pursue, and effectively communicating with others. In addition, considering the globalization and all changes we are facing in our lives, the habit of continuous learning (lifelong learning) is fundamentally important for all of us.

We started to support youth (18-25 years old) in Thailand to obtain core life skills. A few weeks ago, 150 youths from Chang Rai and Bangkok had a chance to meet a professional coach, Ms. Siriluck who is an inspirational speaker and an author of the national bestselling books. Her coaching approaches are well adapted for Asian people and similar to approaches of world famous coaches and mentors such as Anthony Robbins, Brian Tracy, Steven Covey, Dalai Lama, and Dale Carnegie. It was such a sensational opportunity for these youths to meet a very much encouraging professional mentor.

Like other countries, the formal education system not always provides young people with good opportunities to become confident and realize their potentials. Rather, young people who are not so successful in learning competition may lose their confidence and hopes for their future prosperities. For some people, education backgrounds and names of University enlarge future possibility and prosperity. For many people, education background could become a lifetime complex.

A young man (18 years old), moving from Myanmar when he was much younger, had been disappointed about his life and future. He has been very poor with his parents who never had proper jobs. He has been suffering from poverty and language barriers, which made him feel that he is inferior to anyone. Meeting with Ms. Siriluck was such a shocking blow to

him. He was told to find his competency and passion. Recently, he sent UNESCO a message that he is still keep reading given books and become so ready to face the reality and change situations by himself. What an encouragement for us as well! You can imagine this kind of feedback is the best source to give us energy.

The story does not end here. The story has just started because we are now about to support those young people through mobile learning and social networks. One big opportunity is good as the 1st step and we know what we would like to do is to keep providing more information and opportunities and get them connected. The penetration of mobile phones in Thailand is high. If they are more than 18 years old, all of them literally have mobile phones. Some already have smart phones and spend considerable time in social networks.

We are about to design contents of life skills for young people based on core parts mentioned above. We try to feature the 21st Century skills¹ that have been advocated by the governments and private corporations as much as possible.

To support young people to obtain these skills, we would like to take three main approaches. One is the daily mobile learning. Young people will receive interesting, useful and inspiring SMS messages on life skills /21st Century skills every day and night. They will keep them in their minds, think of them and create new questions with their curiosity. They are expected to respond with SMS from time to time.

The second is monthly meetings at community learning centers (CLC). There are more than 8,000 community learning centers in Thailand. Young people who receive messages are invited to meet at nearest CLC and have dialogues through a facilitator. They will get additional information about topics and express themselves.

The third is seminars to meet successful people in Thailand. Connecting young people with those successful people in business, sports, education, etc will be influential. The meeting with a professional coach/mentor mentioned above is the good example of this approach. There are a number of successful and encouraging Thai people despite their difficult backgrounds. Meeting and hearing those people would be such an inspiration for young people to face up.

Importantly, social networks on PC and smart mobiles will help all three approaches effectively. There is a possibility to reach more young people without any cost. They can be connected through social networks on life skills like we do by pushing “like” on Facebook.

The activities mentioned above are in a pilot project. While implementing them, we raise funds as well. If you need further information, please contact with Ichiro Miyazawa, i.miyazawa@unesco.org.

- 1) The skills include four main areas that are core subjects and themes; learning and innovation skills; life and career skills; information; media and technology skills.

Author: Ichiro Miyazawa, Programme Specialist for Literacy and Non-formal Education, UNESCO Bangkok

Further information:

- [Literacy and Continuing Education - UNESCO Bangkok](#)

Related links:

- [Driving female literacy through connectivity in Pakistan](#)
- [From Illiteracy to mCommunity, Jokko Initiative Empowers Women with mLearning](#)
- [The impact of a mobile phone literacy program on educational outcomes](#)
- [Mobiles and internet improve the livelihoods of the poorest](#)
- [Africa: Mobile phones revolutionizing education](#)
- [Mobile learning: Transforming the delivery of education and training](#)
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SMS education in Pakistan

This is now changing very quickly! Many factors appear to be behind this change -- including, it is probably worth noting, the strong apparent interest by many companies to

get in on the ground floor of what they feel will be very large markets related to 'm-learning' in developing countries in the coming years. (I now get so many cold calls from vendors every week wanting to share information about their 'm-learning solutions' that I let all phone calls ring into voicemail by default.)

With momentum building around [1-to-1 computing](#) initiatives (where every student receives her own laptop) in many countries, many governments are embarking on large-scale roll outs of educational technologies as never before. However one feels about the potential relevance of mobile phones in education (and [reasonable people can certainly disagree about this](#)), it appears to me to be a topic that at a minimum merits some discussion in many education systems, given that small, connected computing devices known today as mobile phones are increasingly to be found in the pockets and pocketbook of teachers, and even students, at rates perhaps unimagined only a decade ago. It is worth noting that this large scale roll-out of computing devices in the hands of teachers and students has largely happened without any government subsidy at all. Given this fact, is it worthwhile for governments to consider taking some of the monies dedicated for the purchase of ICT hardware and use it instead for other purposes (more/better education content? more training? better connectivity? something not at all ICT-related)? Even if you feel that mobile phones are not relevant to discussions of technology use in education, perhaps it is worth considering these sorts of questions before dismissing such use out of hand.

My point here is not to revisit the related arguments often advanced and debated about the potential use of mobile phones in education (for that, you may wish to have a look at the [numerous EduTech blog posts on the topic](#)). Instead, it's to take a quick look at an interesting set of inter-related pilot projects that hasn't received much attention internationally.

In Pakistan, some innovative folks are exploring how basic text messaging (SMS) can be used in the education sector to the benefit of people with even very low end mobile phones, leveraging the increasing high teledensities found in communities across the country.

What's happening in Pakistan in this regard? A lot, it turns out, although admittedly only in pockets and at a rather modest scale to date. The country is perhaps not unique in what is being explored (most everything being tried there is being tried in various other places as well), but that doesn't mean it isn't quite interesting. For example:

In February, almost 150 third year students at Asghar Mall College in Rawalpindi (note: 'third year' in this context would be the rough equivalent of the first year at university in, for example, the United States) for whom authorities had mobile phone numbers on file began participating on a voluntary basis in a daily vocabulary quiz exercise delivered by SMS. These young men -- from middle to lower middle class backgrounds -- are sent a simple multiple choice question. Texts are addressed to each student individually, using the equivalent of a 'mail merge' function that will be familiar to anyone who has had to send out 'blast' emails or faxes). They reply via SMS, and then receive an automated response, based on their answer. In this response, their answer is repeated, a notation is made about whether the answer given was correct or not, and the correct answer is incorporated into a sample

sentence.

This sort of thing is no substitute for school, of course. But, given current text messaging rates in Pakistan -- a country with some of the fastest growth in recent years in text messaging in the Asia-Pacific region, as well as some of the lowest tariff rates -- it is quite cheap. It is "on-the-go". It is supplemental to what is being taught in the classroom, and increasingly easy to do, given the technology tools and code base out there. While Pakistan may not see high household penetration rates of desktop computers connected to the Internet for many, many years to come, most every household already has access to a small connected 'computer' of a different sort -- the mobile phone -- and this project is seeking to capitalize on this reality.

One thing perhaps that is worth mentioning here is that, for some of these students, who have been educated in a system where very large, lecture-based classes are the norm, *this may be the first time they have received 'personalized' feedback of any sort from their instructors.*

The team in Pakistan is asking all sorts of interesting questions as part of their work. How can the potential impact of each message be maximized, especially given that these messages constitute just one small part of a large stream of messages -- cricket scores, notes from friends and family, jokes, news items, scripture passages and horoscope advice -- that students receive every day? What is best learned or reinforced through such interactions? What are the most effective ways to sequence and scaffold such messages over time?

In the process, much user-related information is being collected, helping to answer some basic questions for which there are not yet good, reliable data:

- How many young students have phones?
- How many can afford to participate in education-related activities via mobile phone -- and are willing to do so?
- (*Related to this:* Are there ways to subsidize SMS traffic for various populations? And what if people actually respond to the SMS quizzes -- can this sort of thing at scale?)

Vocabulary-building and grammar quizzes are just two potential applications possible as part of this sort of SMS-based interaction; opportunities for quizzes in various academic areas are easily imagined. This could be great for test preparation, for example -- a potentially fertile market for private firms in Pakistan. Indeed, project proponents hope to use this as a way to help to stimulate private sector activity and innovation in this area, especially for young entrepreneurs, given what have turned out to be very low piloting costs.

The software they are using for all of this is home grown; the hope is to eventually open source it so that others interested in doing this sort of thing don't have to start from scratch. (Similar efforts are underway in other parts of the world -- [FrontlineSMS:Learn](#) has been [piloted in neighboring Afghanistan](#), to cite just one example.)

In addition to the potential utility of the messages themselves, the people behind this project see potential value in establishing a 'relationship' between government and its constituents and key stakeholders. Are there possibilities here for government to learn using SMS, they wonder? If a relationship via text message is established during schooling between students and education authorities, can government remain engaged with students after graduation, continuing to provide targeted informal education services as might be useful?

As my World Bank colleague Zubair Khurshid Bhatti notes, "Engagement with student and parents is critical for improved governance of the tertiary education sector. Governance possibilities are also huge for primary and secondary schools, where very large percentages of parents and school committee members have access to phones. This project starts to put in place some of the architecture to help support interactive targeted communication with the real beneficiaries."

Based on early returns from the pilot, the Provincial Education Department of the Government of the Punjab is showing active interest in exploring these sorts of activities further, and the project principals are already planning to expand the scope of their activities. Why not try sending SMSs to parents, they ask, challenging them to pose a question to their children, based on something that was meant to be on the curriculum for that week? This would, in a very small, modest way, alert parents to what students are supposed to be learning. If students don't know the answer, this may trigger parents to push their kids more, and/or to question whether the school is doing a good job in this area (including whether or not the official curriculum is being followed at all!).

As in many other places, people involved with this project are investigating how information submitted via SMS can be entered directly into central databases, utilizing mobile phones as front line data entry tools. They note that this offers many advantages over the use of desktop computers or laptops, which often require technical support and training not necessary for phones (which people are able to figure out how to use, and keep working, largely on their own). They are also exploring how it might be possible to better monitor the attendance of teachers through things like the use of GPS-tagged photos snapped and transmitted via low end 'feature phones'.

The point here is to demonstrate that, in certain circumstances, education systems may not need to 'wait for all citizens to have smartphones' to start exploring how they might be able to take advantage of the fact that mobile phones are increasingly ubiquitous in many teaching and student populations.

It is also to put out a call for assistance: The team in Pakistan has developed a useful technology infrastructure to deliver quizzes via SMS. Are there any groups with sets of, for example, English-language vocabulary quizzes that could easily be utilized in an SMS-based effort of this sort? (For those interested in such things, you can view some of the SMS quizzes, and related results, [online](#).) The team in Pakistan do not have access to rigorously tested banks of questions and answers that might be profitably deployed to assist in scaffolded vocabulary development. If there are any academics or non-profit groups that have access to such things, or if any readers could point the team in Pakistan to open access resources of this

sort, please do leave a comment or contact me directly here:
<http://blogs.worldbank.org/edutech/sms-education-pakistan>.

Author: Michael Trucano, Sr. ICT & Education Specialist, The World Bank
Source: EduTech - A World Bank Blog on ICT use in Education

Further information:

- [SMS education in Pakistan](#)

Related links:

- [Driving female literacy through connectivity in Pakistan](#)
 - [From Illiteracy to mCommunity, Jokko Initiative Empowers Women with mLearning](#)
 - [The impact of a mobile phone literacy program on educational outcomes](#)
 - [Mobiles and internet improve the livelihoods of the poorest](#)
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News & Events

TIGA awards celebrate 'ICT for Education' projects at eLearning Africa

The second leg of the 2011 Technology in Government Awards (TIGA) in the 'ICT in Education' category were celebrated at a high-profile event and ceremony end of May. Over 1,400 participants from about 80 countries attended the eLearning Africa, 6th International Conference on ICT for Development, Education and Training, at the Mlimani City Conference Centre, Dar es Salaam, Tanzania.

The awards, according to the Information and Communication Service of the Economic Commission for Africa (ECA), were co-organised by the Economic Commission for Africa (ECA) and the Government of Finland in collaboration with the eLearning Africa Scholarship Trust, the organizer of the eLearning Africa annual event. The awards were given in recognition of initiatives aimed at exploiting ICTs for education and training in Africa.

In remarks read by his representative at the ceremony, ECA's Executive Secretary and UN Under-Secretary-General, Mr Abdoulie Janneh said, "today we see signs that more and more ICT applications are being integrated in all sectors in Africa including in government, education, health and in the economic sectors."

He, however, noted that whilst the adoption of ICTs in education in Africa is on the increase, "it is a fact that the continent still falls behind, which is why these awards are so important." He added, "It is indeed necessary for the youth in Africa to gain acquainted with the 21st century skills in order to increase the competitive advantages of Africa."

The following projects won this year's 2011 awards in the 'ICT in Education' category:

- ***The Speaking Book:*** This project aims to make education about critical issues accessible to all regardless of literacy or education level. This 'world first' is created by South Africans for Africans and focuses on rural, vulnerable and excluded people living in disadvantaged regions of Sub-Saharan Africa and communities around the world. Improving health care is a top priority for Africa and through the Speaking Books (<http://www.sadag.co.za>, www.booksofhope.com), access to essential medical information for low literacy, rural, and vulnerable Africans is improved.
- ***Dr Math,*** South Africa - Dr. Math (<http://www.csir.co.za>) is a mobile tutoring service that provides access to credible, personal, on-demand tutoring in the subject of Mathematics.
- ***eLimika e-learning programme,*** KENYA - eLimika (<http://www.elimika.ac.ke>), which is a Kiswahili word for "get educated", is the vehicle through which Kenya Institute of Education (KIE) delivers its courses.
- ***Plate-forme de formation à distance de l'Academia Aberta de Angola:*** Formation partout et à tout moment!, ANGOLA (www.academia-aberta.com) is the

training platform of the Open Academy of Angola 2 and provides a distance training space and collaborative working environment.

Background:

For the first entries to the award in 2007, there were 36 TIGA entries from 17 countries. Two years later, there were 60 entries from 20 countries in 2009. This year, 89 entries were received from 24 countries, with over 44 projects short-listed for the Awards. In general, an increase of over 40% in the number of entries is received with every subsequent TIGA Award.

According to ECA, this suggests that there is significant interest and increased use of ICT in delivery of innovative services to the people by African governments.

During the next TIGA process in 2013, ECA will be launching a G-Government category or Geospatial Government, which encompasses the use of the Internet and GIS in making the delivery of services more effective by governments.

Further information (pdf):

- [2011 Technology in Government Awards \(TIGA\)](#)

Related links:

- [Wenhui Award for Educational Innovation calling for nominations](#)
- [UK and Venezuelan ICT experts awarded UNESCO King Hamad bin Isa Al Khalifa Prize](#)
- [The Rector of the Moscow Institute of Open Education and Jordan's Ministry of Information and Communications Technology are the winners of the 2009 UNESCO King Hamad Bin Isa Al-Khalifa Prize](#)
- [Chinese and Egyptian laureates receives UNESCO prize for the use of ICT in Education](#)
- [Shanghai TV University and Egyptian Ministry to receive the 2008 UNESCO King Hamad Bin Isa Al Khalifa Prize for the Use of ICTs in Education](#)
- [Celebrating Innovative ICT in Education Practices: From Idea to Impact](#)

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Harnessing ICTs to alleviate poverty

Reducing poverty and fostering sustainable development requires empowering people with knowledge and the ability of taking charge of their lives. The strategic use of ICTs can accelerate the acquisition of knowledge and the provision of basic services that enhances lives. Overcoming the challenges and seizing the opportunities offered by ICTs was the main subject of discussion at a special session of the United Nations Group on the Information Society (UNGIS) during the Fourth United Nations Conference on the Least Developed Countries (LDCs), in Istanbul (Turkey) on 12 May.

The session was opened by UNESCO Director-General, Irina Bokova, who currently chairs UNGIS. Panelists included Supachai Panitchpakdi, Secretary-General of United Nations Conference on Trade and Development (UNCTAD), Brahim Sanou, Director of Telecommunication Development Bureau, International Telecommunication Union (ITU), and Geraldine Fraser-Moleketi, Director of the Democratic Governance Practice of the Bureau of Development Policy for the United Nations Development Programme (UNDP).

Numerous examples exist to show how ICTs have contributed to reduce poverty by bringing basic services to the most vulnerable and marginalized populations for the first time in history – from community radio in Haiti to the development of service centres in Bangladesh and the explosion in the use of mobile telephones by farmers, fishermen, and micro entrepreneurs to access vital information and maintain important contacts. According to figures from ITU, there are now more than five billion mobile phone subscriptions in the world, most of which are in developing countries.

ICTs have fostered the dissemination of knowledge for development and promoted good governance by enhancing transparency and accountability. For many areas of development, it has become unthinkable not to use these technologies and deploy innovative solutions on the ground.

At the same time, a number of challenges have emerged, threatening gains made so far. Climate change, rising food prices, natural disasters and the recent global economic crisis, for example, have undermined past investments and are jeopardizing future efforts by LDCs to achieve their development goals.

The UNGIS session brought policy makers and ICT experts together to look at ways of harnessing ICTs for development, to further strengthen and leverage their power as development tools and integrate them into development strategies.

Further information:

- [Harnessing ICTs to alleviate poverty](#)

Related links:

- [Ban welcomes launch of digital initiative to attain Millennium Development Goals](#)
- [Mobiles and internet improve the livelihoods of the poorest](#)
- [Senior UN, private sector officials define vision for globally connected society](#)
- [USAID, Cisco & World Learning to promote entrepreneurship and ICT Education](#)

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Bangladeshi teachers to lead content development

30,000 teachers in Bangladesh are poised to lead content development with the prodding of the Access to Information (A2I) Programme of the Prime Minister's Office. In secondary schools across the country, teachers are developing multimedia content for general subjects for classroom use.

"To help the teachers along, A2I has developed some sample content for the teachers so that they can get ideas of how to develop their own content," said Afzal Hossain Sarwar (pictured), Consultant, A2I, to "FutureGov Asia Pacific" magazine.

Besides this sample content, A2I has also developed e-books from all of the national curriculum textbooks, and created e-content on education, health, and agriculture for Bangladesh's National e-Content Repository – a portal with information in written, audio, video, animation formats for the population's use.

“To date, the Teacher-led Digital Content Training Programme has developed educational TV programmes, an education portal for teachers across the country to share content, scaled-up the [multimedia classroom initiatives](#), and organised a Digital Education Content Competition for teachers,” said Sarwar.

Sarwar explained that the Teacher-led Digital Content Training Programme was started in cooperation with the Ministry of Education's Teacher Quality Improvement in Secondary Education Project (TQI-SEP).

Author: [Xinghui Guo](#)

Source: FutureGov

Further information:

- [Bangladeshi teachers to lead content development](#) - FutureGov magazine

Related links:

- [Bangladesh develops master plan for ICT in Education](#)
- [Bangladesh receives USD\\$81 million from the World Bank to build up higher education](#)
- [ICTs provide a platform for innovative education in India and South Asia](#)
- [ICTs for development: Improving policy coherence](#)
- [ICT-based distance education in South Asia](#)
- [Young people in Bangladesh show their world through photos](#)

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Rural schools connected to ICT in southern Sri Lanka

International Telecommunication Union (ITU) and the Telecom Regulatory Commission of Sri Lanka (TRCSL) have inaugurated a project to connect 25 schools in Akuressa, Southern Province of Sri Lanka. Under the “*Connect a School, Connect a Community*” initiative, ICT tools such as computers and printers as well as Internet connectivity will be provided.

Within the framework of a public-private-people’s partnership (4Ps) model, telecommunication operators, Internet Service Providers (ISPs) and NGOs have joined the project as partners to assist in providing access to education through ICTs in the rural schools of Sri Lanka, some of which are located in remote communities. This project aims to transform these schools into connected community ICT centres. Their long-term sustainability would provide a vital link to marginalized and vulnerable groups including children, women, indigenous people, persons with disabilities and those living in rural, remote and underserved areas of Sri Lanka.

In addition, Intel plans to offer training for 62 teachers at 31 schools through the Intel Teach programme, which helps teachers to be more effective educators. The programme entails training teachers to integrate technology into their lessons and to promote problem solving, critical thinking and collaboration skills among their students.

Appreciating the partnership and assistance extended by ITU, TRCSL, Intel and ADB, which funded a project to promote ICT education in rural areas of the island, the Secretary in the Ministry for Education of Sri Lanka, Mr H.M. Gunasekara said, “This initiative provided our school system with much needed ICT equipment, know-how and teacher empowerment to reach our national ICT goals.”

ITU Secretary-General Hamadoun Touré noted in his statement: “This is an important initiative that sets a milestone in driving ICT access to rural and remote areas of Sri Lanka. It benefits not only teachers and students but also marginalized and underprivileged communities in the country. Such public-private-people’s partnerships — or 4Ps — promoting school-based community ICT centres are an attractive, affordable, and sustainable step forward in providing digital opportunities for Sri Lanka.” The message was delivered on behalf of the Secretary-General by the Regional Director of the ITU Regional Office for Asia-Pacific, Ms Eun-ju Kim.

The Director General of TRCSL, Mr Anusha Palpita stated, “This school and rural community-oriented ICT project will be beneficial to the rural sector particularly its schools which in the future can be expected to play a key role in the penetration of ICT knowledge into the rural and remote areas of the country.”

Promoting connectivity to enable schools to serve as community broadband ICT centres involves a series of critical issues, which must be addressed holistically, such as understanding and implementing technology, related policy and regulatory frameworks, cost analyses, and access to end-user equipment. These include low cost computing devices and basic ICT training for teachers and members of local communities as well as providing a safe online and physical environment for children, assistive technologies and an accessible environment for persons with disabilities, and developing and accessing content for education, among many others.

Further information:

- [Rural schools connected to ICT in southern Sri Lanka](#)

Related links:

- [Intel assists educators in the south to become more ICT friendly](#)
- [ICTs provide a platform for innovative education in India and South Asia](#)
- [IT@school Project: Successfully educating Kerala with ICT](#)
- [Community radio connects, educates and entertains in rural India](#)
- [The case of the occasionally cheap computer: Low-cost devices and classrooms in the developing regions](#)

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WSIS online debate: More research on impact of mobile phones for development needed

UNESCO's World Summit on the Information Society (WSIS) Platform hosted an online debate from 11 April to 2 May and attracted over 2000 experts around the world. This debate was concerned with the impact of mobile telephony on social and economic development. Moderator David Souter emphasized the needs of more research on this topic.

The debate as a whole illustrated the difficulties of distinguishing between social and economic impacts. Three main areas of use and impact were observed. The first of these was social networking - the use of mobile phones to extend and make more effective use of relationships between individuals and within communities. The second area was economic value - the use of phones to enhance business opportunities, to expedite purchases and remittances, and to obtain funds at times of need and so reduce vulnerability. The third one concerned the implementation of interventions by governments and donors that made explicit use of mobile phones to enhance social welfare.

The impact of mobile phones clearly varies between individuals, and it also varies over time. As more and more people acquire mobiles, network factors, such as critical mass, come into play, enabling more services to become cost-effective. As technology develops, too, the mobile phone has evolved from a device for voice telephony to a multipurpose handset that includes mobile Internet and social networking amongst its functions.

It is clear from the debate that more research is needed into the impact of mobile phones. The pace of adoption and of change in technology and services is so fast that we cannot rely on evidence from as recent as three years ago to give us reliable indicators of what is happening today. More research is needed in many different contexts and communities, including longitudinal studies that observe changes in mobile phone behaviour and impact over time within particular social groups. UNESCO and other agencies can contribute to that work.

Further information:

- [Full report](#)

Related links:

- [WSIS Forum 2011: UNESCO strongly highlights the potentials of ICTs for building inclusive, open and diverse Knowledge Societies](#)
- [UNESCO calls for participation in online debate on mobile phone for development](#)
- [Open consultation on WSIS Forum 2011: Call for participation](#)
- [5 ways ICT can support the Millennium Development Goals](#)
- [Advances in mobile services and broadband are transforming Asia- Pacific connectivity](#)

- [ICTs for development: Improving policy coherence](#)

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Information technology skills will boost women's participation in crucial sector – UN

Greater efforts to support girls and young women to acquire skills in ICTs could help address projected shortages of manpower in those professions, the United Nations telecommunications agency stressed out on 28 April, marking the first "[Girls in ICT Day](#)."

"With many countries now forecasting a shortage of skilled ICT professionals within the next ten years, it's vital that we attract young women into technology if we are to sustain healthy growth rates for the industry overall," said Hamadoun Touré, the Secretary-General of the International Telecommunications Union ([ITU](#)), in a statement announcing the launch of the Day.

"With excellent employment opportunities and very good remuneration, a career in technology represents an excellent choice for girls in every country worldwide," Mr. Touré added.

The Girls in ICT Day will be observed on the fourth Thursday of April every year to promote gender equality and the empowerment of women through the use of ICTs. It results from a resolution adopted at ITU's Plenipotentiary Conference in Guadalajara, Mexico, last year.

Under the resolution, ITU pledged to incorporate a gender perspective in the implementation of all its programmes and plans, following which the Global Network of Women in ICT was established.

The network is designed to encourage girls and young women to choose technology careers by providing mentoring resources, high-profile role models and toolkits that help national authorities and organizations promote technology careers to women. It is supported by ITU's Telecommunication Development Bureau (BDT), which, through its Gender Unit, is working on a range of strategies to use ICT to improve the livelihood of women worldwide.

"This new Girls in ICT Day will provide a much-needed boost to female participation in the ICT sector," said Mr. Touré.

ITU's support for the establishment of the Day and for the launch of the Global Network of Women in ICT are among the first in a year-long series of activities around the theme of "Women and Girls in ICT" endorsed by the ITU resolution.

One recent activity was the high-level panel organized to commemorate the 100th anniversary of International Women's Day, with the theme of "Goodbye to the IT girl? Why are young women deserting technology?"

The BDT will also be spearheading a number of gender-related initiatives over the course of the year, including the recent announcement of a new partnership with Telecentre.org to train disadvantaged women in basic use of ICT equipment and applications.

"Technology is now widely recognized as a critical enabler of socio-economic development," said Brahima Sanou, the BDT Director. "Leveraging the power of ICTs to improve the livelihood of women worldwide has the power to dramatically accelerate progress towards achieving Millennium Development Goal 3 on gender equality by the target date of 2015," he said.

Further information:

- [Information technology skills will boost women's participation in crucial sector – UN](#)

Related links:

- [High-level Debate of the ITU: Why are young girls rejecting careers in technology?](#)
- [ICTs and gender](#)
- [Video on Women in ICT: 'ICT is wicked'](#)
- [Are girls really excluded from ICT, or is this just a misconception?](#)
- [Gender-based issues and trends in ICT applications in education in Asia and the Pacific](#)
- [Gender and ICT](#)
- [Technology-based vocational skills training for marginalized girls and young women](#)
- [Gender and ICTs for Development: A Global Source Book](#)

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9th Biannual International Computer Supported Collaborative Learning (CSCL) Conference

On 4-8 July, the 9th international CSCL conference will be held in Hong Kong. Organized by the International Society of the Learning Sciences (ISLS) and the Centre for Information Technology in Education of The University of Hong Kong, the conference hopes to draw attention from the public, including policy makers and the professional educational community's research and development contributions.

This theme of this year's conference is "connecting computer-supported collaborative learning to policy and practice". Attendees will examine how CSD practices bring change to educational practices for the better for which they can then be used to help form educational policies.

The conference will comprise of keynotes, submitted paper sessions, workshops, panels, educational showcases, interactive events, and much more, centered around current and important issues of the community and reporting recent research findings.

The highlights of this year's conference include keynote talks by prominent speakers including Dr. Gwang-Jo Kim, Director of UNESCO Regional Bureau for Education in Asia-Pacific; Dr. Ed H. Chi, Research Scientist, Google Research; Prof. Erik Duval, Professor of computer science, K.U Leuven, Belgium and Prof. Roy Pea, Stanford University Professor of the Learning Sciences and Director of the Stanford Center for Innovations in Learning.

CSCL 2011 invites participation from experienced as well as early career researchers, designers, educators and industrial trainers from disciplines including but not limited to education, cognitive, social, and educational psychology, didactics, subject matter specialities, computer science, linguistics and semiotics, speech communication, anthropology, sociology, design.

Further information:

- [9th Annual International CSCL \(Computer Supported Collaborative Learning\) Conference](#)

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Programmes & Projects

Mobile and immersive learning for literacy in emerging economies (MILLEE)

Overview

Literacy levels in most developing countries remain shockingly low. Even more challenging is the tension between regional and “world” languages – that economic opportunities are often closed to those who are literate only in a regional language. In India for example, English is the language of instruction in private schools and all universities, a large fraction of business and government, and the language which is driving India’s service economy. The value of English is widely recognized by ordinary Indians. For complex reasons, however, English teaching in public schools is not succeeding. For instance, teachers in rural Indian schools were unable to converse with the authors in English despite being required to teach the language. Worse, regular school attendance is out of reach for those children who have to work for the family in the agricultural fields or households.

At the same time, the mobile phone is the fastest growing technology platform in the developing world. India is the largest market for mobile phones worldwide, with the majority being bought by illiterate and semi-literate users. A growing percentage of these phones feature advanced multimedia capabilities for photos and gaming. These devices are a perfect vehicle for new kinds of out-of-school language learning, which can occur at places and times that are more convenient than school. These factors create an extraordinary opportunity for complementing the formal educational system: to dramatically expand English skills in young Indians, which is the fastest way to open the doors for employment and further education.

Mobile and Immersive Learning for Literacy in Emerging Economies – project (MILLEE), now in its 7th year, aims to realize this opportunity through a scientific approach. It adopts a human-centred approach to designing immersive, enjoyable, language learning games on mobile phones, modelled after the traditional village games that rural children find familiar. It has won several competitive grants and seen extensive field tests. It was featured in the press in India (where the last 10+ rounds of field studies took place), a Canadian Broadcasting Corporation television documentary and ABC News. Its founders believe the “world language” challenge holds in many other developing regions and that its approach has similar value with other languages. In addition to scaling-up the project in India, MILLEE is being expanded into rural China (Mandarin literacy), sub-Saharan Africa (English literacy) and elsewhere.

Details

Since MILLEE began in 2004, the project has conducted more than 10 rounds of fieldwork spanning almost 12 months in India. It did not start with a preconceived idea, but instead the project team spent time with local stakeholders to understand their needs. Exploratory studies revealed social and infrastructural challenges in using desktop computers to promote learning in school settings. On the other hand, there is a tremendous opportunity for out-of-school learning via educational games on mobile phones.

MILLEE followed a human-centred design process, in which they consulted experienced local English teachers on their instructional and game designs. The foundational games that MILLEE had built have gone through numerous iterations since 2006, through formative evaluations with four communities of rural and urban slums learners in both North and South India. By field-testing with multiple communities, the team observed user behaviours with the technology that generalize across settings. Through ethnographic studies, they also studied how social factors such as gender and caste affected MILLEE gameplay in everyday rural environments.

MILLEE does not believe it is practical to develop “one-size-fits-all” games for national or global use. Rather, the games need to be tailored to local practices. In particular, the project adapts the traditional village games with which the target child learners are already familiar, so as to ensure culturally appropriate game designs. The end-product is therefore not only the games themselves, but a suite of tools and methods for adapting and extending them for local use.

The project has concluded a summative evaluation where 27 students attended an after-school program at a village in Uttar Pradesh, India three times per week over a semester to learn English using MILLEE games. Participants exhibited significant post-test gains at the end of this intervention.

They achieved the above learning gains by combining theory and practice. The games drew on the latest research in language acquisition. The project also reviewed 35 successful commercial language learning packages to identify their best practices. By reusing those best practices as a starting point, reinventing the wheel was avoided.

History

Dr. Matthew Kam started MILLEE in 2004 as his Ph.D. thesis at the University of California, Berkeley, where he is an alumnus of the Berkeley Institute of Design and TIER research group (Technology and Infrastructure for Emerging Regions). Since graduating with his Ph.D. from UC Berkeley in 2008, Matthew joined Carnegie Mellon University in January 2009 as an Assistant Professor, where he is expanding MILLEE into India, China, sub-Saharan Africa and other underdeveloped regions. At any one time, Matthew advises about 20 Ph.D., Master's and undergraduate students who contribute to the design, programming, graphics and playtesting of the MILLEE games that will be piloted in the field.

Technology transfer takes place in parallel to the above research activities. Indrani Vedula joined the team in 2010 as the project manager who is based full-time in India. Matthew and Indrani work hand-in-hand on business and partnership development. The goal is to build a social enterprise that can create and distribute MILLEE games in underdeveloped regions around the world on a cost-recovery basis. With mobile technology that can extend the reach of learning beyond formal school environments, the vision is to revolutionize educational services delivery throughout the developing world.

Further information:

- [Mobile and immersive learning for literacy in emerging economies \(MILLEE\)](#)

Related links:

- [New technology supporting informal learning](#)
- [Mobile learning: Transforming the delivery of education and training](#)
- [Learning using mobile or ubiquitous technologies - Handheld Learning Conference](#)

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Resources

UNESCO launches new global ICT in Education website

ICT is an increasingly important tool for learning and teaching. UNESCO recognizes that ICT can contribute to a host of education issues: universal access, equity, the delivery of quality learning and teaching, teachers' professional development and more efficient education management, governance and administration.

As the leading UN agency for e-learning, UNESCO has committed itself to helping its Member States to harness the potential of ICT in achieving quality Education For All. The ICT in Education website was established to provide countries with resources and advice for elaborating ICT in education policies, strategies and activities.

The new ICT in Education website compiles and indexes resources and toolkits on policy, teacher training, access to lifelong learning opportunities, e-learning, open educational resources, and ICT for educational administration and management, all developed by UNESCO and its partners

The website also provides an inventory of ongoing ICT in education projects and contact details for further information. Social networking applications will also be used to spark dialogue and encourage collaboration with policymakers.

Apart of this global website maintained by UNESCO, several regional and field offices maintain their own website on ICT in Education, including UNESCO Bangkok, primarily focussing on all ICT in Education activities in the Asia and Pacific region.

Further information:

- [ICT in Education website](#)
- [UNESCO in Education Facebook page](#)
- [UNESCO ICT in Education Twitter feed](#)

Related links:

- [UNESCO Bangkok ICT in Education website](#)

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A pedagogical framework for mobile learning: Categorizing educational applications of mobile technologies into four types

Instructional designers and educators recognize the potential of mobile technologies as a learning tool for students and have incorporated them into the distance learning environment. However, little research has been done to categorize the numerous examples of mobile learning in the context of distance education, and few instructional design guidelines based on a solid theoretical framework for mobile learning exist.

In this paper, the author **Yeonjeong Park** of Virginia Tech university compares mobile learning (m-learning) with electronic learning (e-learning) and ubiquitous learning (u-learning) and describes the technological attributes and pedagogical affordances of mobile learning presented in previous studies.

Park modifies transactional distance (TD) theory and adopts it as a relevant theoretical framework for mobile learning in distance education. Furthermore, the author attempts to position previous studies into four types of mobile learning:

- 1) high transactional distance socialized m-learning,
- 2) high transactional distance individualized m-learning,
- 3) low transactional distance socialized m-learning, and
- 4) low transactional distance individualized m-learning.

As a result, this paper can be used by instructional designers of open and distance learning to learn about the concepts of mobile learning and how mobile technologies can be incorporated into their teaching and learning more effectively.

Author: **Yeonjeong Park**, Virginia Tech, USA

Read the paper:

- [A pedagogical framework for mobile learning: Categorizing educational applications of mobile technologies into four types](#)

Related links:

- [New technology supporting informal learning](#)
- [Mobile learning: Transforming the delivery of education and training](#)
- [Learning using mobile or ubiquitous technologies - Handheld Learning Conference](#)

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Inter-Agency Network on Education Simulation Models (ESM)

Inter-Agency Network on Education Simulation Models (INESM)'s website is a portal aimed to facilitate sharing experiences and expertise in education simulation models (ESM). It is compiled and managed by the Task Team on Education Simulation Models (TTESM) and housed by UNESCO. The INSEM database holds multiple ESM linked to forum topics, learning resources, and can be searched by country, scope of utilization, and scope of projection.

This database compiles EMS from multiple sources: The World Bank, UNDP, UNICEF, Academy for Educational Development (AED), UNESCO, and the International Institute on Applied Systems Analysis (IIASA). As a result, it has wide geographic coverage – sample ESM come from as far abroad as the Dominican Republic, Egypt, and Vietnam. Because

many INESM works as a clearinghouse for ESM, many different types of ESM, both in terms of model and technology, are available.

The INESM forums provide a network for policy makers, ESM professionals, and a wide variety of other users to connect and share thoughts and advice on how to improve ESM. Furthermore, forum threads can be linked to specific ESM and learning resources. Although it is still developing, the INESM is a resource for any administrator looking for examples of ESM or researchers investigating a particular country or policy type. The TTESM is constantly increasing the size and scope of the database as well as providing guidance and resources to help use ESM to achieve education targets.

Further information:

- [Inter-Agency Network on Education Simulation Models \(INESM\)](#)

Related links:

- [The Education Policy and Reform \(EPR\) Unit](#)
- [UNESCO online courses for educational planning and management](#)
- [ICT in Education Toolkit](#)
- [E-course on social and economic policies](#)

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Teachtoday – living with technology

Teachtoday is a technology-focused website that supports the safe use of technology in the classroom. It is aimed at teachers, administrators, and other members of the school

workforce and contains lesson plans, tutorials, news stories, student advice, case studies, and general information about technology in education.

Teachtoday was developed by many of the UK's leading technology companies in association with organizations like European Schoolnet, Becta, the teaching unions, and the National Association of Head Teachers. Many of the most influential technology and online companies: Google, Microsoft, Facebook, Myspace, Vodafone, Orange, and many more have partnered with Teachtoday to fill it with up-to-date information on transforming and protecting classrooms and schools.

Of particular interest to many teachers, the Key Technologies section provides a discussion of the potential benefits and dangers of the various technologies, social media, internet, and other communications available today. Furthermore, Teachtoday provides grade-appropriate lesson plans that either highlight the integration of technology into teaching, or tackle classroom challenges posed by rapidly changing social networks and media.

Teachtoday helps head teachers, governors, and other administrators as well. In the Impact on Schools section, it provides support for building a safer, more integrated school. Additionally, the Case Studies section gives concrete examples of potential technology related incidents and how best to respond to them.

Teachtoday is a valuable tool for any educator looking to understand and utilize the slew of new tools constantly entering the classroom. It provides information about how to respond to problems that new technology poses as well as news about the top information-related stories.

Further information:

- [Teachtoday](#)

Related links:

- [Celebrating best practices in the classroom](#)
- [Gateway to 21st Century Skills](#)
- [Digital StudyHall](#)
- [neoK12 – educational videos and lessons for K-12 school kids](#)

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Microsoft Mathematics 4.0

Microsoft Mathematics is an educational programme designed by Microsoft to help students learn, visualize and understand mathematical concepts. Subjects such as algebra, geometry, calculus, physics and chemistry are covered in this program. It is free and easy to install, provides step-by-step learning and powerful visualization tools which can help students to grasp the concepts behind the correct answers.

Microsoft Mathematics features include:

- A Full-Featured Graphing Calculator to better illustrate problems and concepts,
- Step-by-Step Equation Solver to learn how to solve difficult math problems,
- Formulas and Equations Library which consists of more than 100 commonly used equations and formulas to help identify and apply equations,
- Triangle Solver to explain triangle and their parts equations,
- Unit Conversion Tool which easily convert units of measure, including length, area, volume, weight, temperature, and so on,
- Ink Handwriting Support to recognize hand-written problems.

With Microsoft Mathematics, students can learn step-by-step to solve intimidating math problems and gain better comprehension on math concepts. Teachers can assist students to learn in depth the math concepts they are most interested in.

Further information:

- [Microsoft Mathematics 4.0](#)
- [Microsoft Mathematics Overview](#)

Related links:

- [UNESCO Bangkok released two new CD-ROMs: Collection of E-Learning Tools](#)
- [Wolfram|Alpha for educators](#)
- [UNESCO Bangkok launches the ICT in Education Teacher Training Series](#)
- [A guide to software as a service in education](#)

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Afghan LIFE website

The Literacy Initiative for Empowerment (LIFE) seeks to empower people, especially rural women and girls, who have inadequate literacy skills and competencies to fully participate in society. As a leading agency of LIFE, UNESCO Kabul in collaboration with the Literacy Department and LIFE partners in Afghanistan has launched the new LIFE Afghanistan website.

Through LIFE's activities in Afghanistan, they have touched many people's lives and changed them to the better. In their work, LIFE provides people with literacy classes and empowers them with reading, writing and calculating skills. Many illiterate people feel ashamed of their inability to read and write, and often cannot find a better job or expand their businesses. Their lives changed after joining the literacy classes - they were able to improve their standards of life and flourish in their study and businesses, as well as contributing to the society.

The LIFE Afghanistan website is available in English, Dari, and Pashto (official languages of Afghanistan). It serves as the one stop place for information on literacy in Afghanistan. Stories from LIFE's activities, major activities from LIFE partners to promote literacy learning, news and documents on literacy can be found on the website.

Further information:

- [Afghan LIFE website](#)

Related links:

- [UNESCO and University of Pretoria collaborate to improve information literacy of teachers](#)
- [Using ICTs to promote education and employment opportunities for immigrants and ethnic minorities](#)
- [From Illiteracy to mCommunity, Jokko Initiative Empowers Women with mLearning](#)
- [Improving child literacy in Africa: Experiments with an automated reading tutor](#)
- [Empowering rural communities in Namibia through ICT](#)
- [UNESCO and the government of Italy agreement on supporting the educational radio and television of Afghanistan](#)

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