News and Events

UNESCO Bangkok and Intel sign agreement to deliver Next Generation of Teachers Project in Asia-Pacific

UNESCO Bangkok and Intel have signed an agreement which is expected to advance the 21st century teaching skills of pre-service teachers in nine countries across the Asia-Pacific region.

Ethiopian children's TV wins again

The creators of Tsehai Loves Learning win the UNESCO prize for a new literacy focused programme at the Japan Prize 2009 International Contest for Educational Media.

High-speed internet gap between rich and poor widening, UN official warns

While the "digital divide" between rich and poor countries may be shrinking overall, the gap is widening between the developed and developing worlds in the availability of broadband or high-speed Internet, a crucial tool for achieving economic and social goals, a top United Nations official said.

UN agency to set up museum of information and communication technology

The new museum will focus on the impact of information communications technology (ICT) on people's lives and will be housed at the headquarters of the International Telecommunication Union (ITU) in Geneva when it opens next year.

International Conference on Teaching and Learning with Technology

The theme of the International Conference on Teaching and Learning with Technology is "Advancing learning with ICT: Innovate Collaborate Transform". The conference will be held in Singapore from 2-6 March 2010 and is jointly organized by the Ministry of Education Singapore and the International Society for Technology in Education.

Programmes and Projects

Virtual music school becomes a reality

Students of popular musical instruments may soon be learning to play with the help of a new generation of intelligent, interactive computer programmes, thanks to European researchers.

Resources

White Paper Information and Communication Technologies in Education for Development

This paper aims to explain the current state of how ICT is being used in education and how it can better benefit current and future users.

Gender differences in teacher computer acceptance

Teachers' computer acceptance is an important factor to the successful use of computers in education. This article explores the gender differences in teacher computer acceptance.

Background paper for identifying the best practice of ICT implementations in Asia and the Pacific

The purpose of the paper is to illustrate the status of ICT initiatives and implementations which aim to bridge the digital divide.

The Literacy Project

A resource for teachers, literacy organizations and anyone interested in reading and education, created in collaboration with LitCam, Google, and UNESCO's Institute for Lifelong Learning.

Dabbleboard

Dabbleboard is an online collaboration application that's centred on a whiteboard. The innovative interface lets users draw almost as naturally as they would on a real whiteboard, enabling them to quickly and spontaneously share ideas.

News and Events

UNESCO Bangkok and Intel sign agreement to deliver Next Generation of Teachers Project in Asia-Pacific

UNESCO Bangkok and Intel have signed an agreement which is expected to advance the 21st century teaching skills of pre-service teachers in nine countries across the Asia Pacific region. The countries are Bangladesh, Cambodia, Indonesia, Mongolia, Nepal, Pakistan, the Philippines, Thailand and Viet Nam.

Under the Memorandum of Understanding, UNESCO and Intel will collaborate to deliver the 'Next Generation of Teachers' Project, which positions pre-service teachers to more effectively integrate information and communication technology into teaching and learning. The training will use resources from the Intel® Teach programme targeting teacher education institutions across the region.

The Intel Teach programme helps teachers be more effective educators by training them on how to integrate technology into their lessons, as well as promoting problem solving, critical thinking and collaboration skills among their students. The programme has trained more than six million teachers in over 40 countries to date, including 15 countries in the Asia-Pacific region.

"Intel's leadership in ICT and its commitment to transforming education through Intel Teach and other signature learning programs makes it an ideal partner to support UNESCO in the Next Generation of Teachers Project," said Mr. Gwang-Jo Kim, Director of UNESCO Bangkok.

"We share a common belief in the important role ICT has to play in the progression of the knowledge economy in countries across Asia Pacific. By encouraging teachers to understand how, when and where to incorporate ICT into their lesson plans, they can effectively develop students' digital literacy competencies and higher-order thinking skills that are necessary to function in and shape the world ahead," Mr. Kim said.

As part of the collaboration, workshops already have been conducted in Bangladesh, Mongolia and the Philippines in more than 23 teacher education institutions.

"This agreement represents an important step in enhancing and transforming education across the region," said Shelly Esque, vice-president, legal and corporate affairs and director, corporate affairs group at Intel. "The Intel Teach Programme portfolio is designed to enable teachers to introduce, expand and support next-generation learning with project-based approaches in the classroom, and provides them with a foundation of skills to fully integrate technology into existing classroom curricula and promote student-centered learning," she added.

Further information:

• Next Generation of Teachers Project

Related links:

- Intel Teach
- Next Gen empowers teacher education institutions
- Fourth Deans Forum The Next Generation of Teachers Project
- Developing ICT curriculum for the next generation of teachers
- Next generation of teachers from the Asia-Pacific successfully trained in integrating ICT into teaching

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• UNESCO "ICT in Education" Announcement e-newsletter

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Ethiopian children's TV wins again

The creators of Tsehai Loves Learning won the UNESCO prize for a new literacy focused programme at the Japan Prize 2009 International Contest for Educational Media.

Whiz Kids Workshop, the creators of Tsehai Loves Learning, won another award at this year's Japan Prize 2009 International Contest for Educational Media.

Previously a winner of the pre-school category at Japan Prize 2008 and a laureate of numerous other international awards for their work on Tsehai Loves Learning, Whiz

Kids Workshop received recognition for its future plans through this year's award. The prestigious UNESCO prize given to Tsehai's Fidel School recognised the best proposal for a future TV programme that promotes literacy. Tsehai's Fidel School teaches Ethiopia's Amharic alphabet in a fun and systematic way, with the help of the popular children's character Tsehai.

The annual competition at the Japan Prize event calls upon television broadcasters and production companies in countries with limited means to submit their ideas for educational programmes. Whiz Kids Workshop's proposal for Tsehai's Fidel School was selected from one of five finalists from 30 entries received worldwide.

At the Japan Prize festival, the five finalists presented their show ideas to a panel of judges made up of children's educational media experts from around the globe. Whiz Kids Workshop co-founders Bruktawit Tigabu and Shane Etzenhouser attended the event in Japan to present their ideas.

According to Mrs Tigabu, "research indicates that children stay in school longer when they enter school prepared". She believes that Tsehai's Fidel School, which is the result of five years of research and creative thinking about the best way to teach the alphabet, will significantly contribute to raise the quality of education.

"I remember how difficult it was learning the alphabet in first grade," said Mrs. Tigabu. "I've always wanted to help make learning the alphabet more enjoyable. As the leading educational media organization in Ethiopia, we're anxious to contribute to improving the educational system.

"It is very encouraging that global experts in educational media have approved our ideas. We hope it will help us build partnerships with the Ministry of Education or other organizations committed to children's education in Ethiopia, so that we can make this idea a reality."

At the award ceremony, Mrs. Tigabu and Mr. Etzenhouser were honored to meet and discuss their efforts with His Imperial Highness Crown Prince Naruhito, heir apparent to the Japanese throne.

The UNESCO Office in Addis Ababa has been a long-standing supporter of Whiz Kids Workshop's efforts and has assisted them regularly with capacity building programmes.

Further information:

• Ethiopian children's TV wins again

Related links:

- <u>International Telecommunication Union</u>
- UN News Centre

- UNESCO calls for proposals for its pavilion at ITU Telecom World 2009
- New ITU ICT Development Index compares 154 countries
- Number of cell phone subscribers to hit 4 billion this year, UN says
- Better ICT connectivity would unleash Africa's economic potential, UN officials say
- Promoting journalism training excellence in Africa

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High-speed internet gap between rich and poor widening, UN official warns While the "digital divide" between rich and poor countries may be shrinking overall, the gap is widening between the developed and developing worlds in the availability of broadband or high-speed Internet, a crucial tool for achieving economic and social goals, a top United Nations official said.

"Australia, for example, a country with 21 million people, has more broadband subscribers than the whole of Africa [a continent with nearly 900 million inhabitants]," UN Under-Secretary-General for Communications and Public Information Kiyo Akasaka told the fourth World Electronic Media Forum in Mexico City.

He stressed that enhanced broadband connectivity can improve access to life-saving health care and information, provide opportunities for skills development and lifelong learning, lower costs for business, and connect farmers to markets, migrants to their families, and citizens to their governments.

"A person in a developed country is on average 200 times more likely than someone in a least developed country to enjoy high-speed access to the Internet," he said, noting that in the case of Internet use, more than half of the developed world population is now online, compared to only 15 per cent in developing countries.

At the start of this year, there were about four billion mobile subscriptions worldwide. "Mobile phones have become one of the most equitably distributed ICTs," Mr. Akasaka said. "This is good news. But while the 'digital divide' between rich and poor may be shrinking, it is still a major concern."

Further information:

• High-speed internet gap between rich and poor widening, UN official warns

Related links:

- <u>7,000 schools to be connected to speed Internet: Azerbaijani education</u> minister
- The Wireless School Connectivity Project
- Pacific ICT Ministers set priorities to "connect the unconnected"
- India to link 18000 colleges under new ICT in Education plan

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UN agency to set up museum of information and communication technology

The United Nations telecommunications agency announced that it has signed an agreement with the United Arab Emirates to build a new museum that will focus on the impact of information communications technology (ICT) on people's lives. The new museum will be known as the ICT Exploratorium and will be housed at the headquarters of the International Telecommunication Union (ITU) in Geneva when it opens next year, the agency said in a press release.

Under the agreement, signed in Abu Dhabi by ITU Secretary-General Hamadoun Touré and Mohamed Al Ghanim, Director-General of the UAE's Telecommunications Regulatory Authority, the UAE and its authority will donate USD\$2 million to the design and construction of the museum.

ITU will acquire the exhibits, equipments and other resources necessary to establish the museum, which will be free of charge to the general public.

The agency said the museum will feature permanent interactive exhibits highlighting cutting-edge ICT systems and their role in everyday lives, as well as rotating exhibitions on new inventions, emergency communications and the future of the Internet.

Dr Touré thanked the UAE and its telecommunications regulator for their support of the museum.

"As we all know, ICTs are not just about technologies any more – they are closely linked with every aspect of our daily lives," he said.

Further information:

• <u>UN agency to set up museum of information and communication</u> technology

Related links:

- International Telecommunication Union
- UN News Centre
- UNESCO calls for proposals for its pavilion at ITU Telecom World 2009
- New ITU ICT Development Index compares 154 countries
- Number of cell phone subscribers to hit 4 billion this year, UN says
- Better ICT connectivity would unleash Africa's economic potential, UN officials say
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International Conference on Teaching and Learning with Technology

The theme of the International Conference on Teaching and Learning with Technology is "Advancing learning with ICT: Innovate Collaborate Transform". The conference will be held in Singapore from 2-6 March 2010 and is jointly organized by the Ministry of Education Singapore and the International Society for Technology in Education.

It will feature policy-makers, academics, innovative practitioners and school leaders from across the Asia-Pacific region and around the world as well as a three-day exhibition showcasing ICT and non-ICT based educational resources, lesson ideas and projects.

Delegates can also visit FutureSchools@Singapore to see how technologies have pushed frontiers of learning, or go on wireless learning trails.

Visit the website at http://www.ictlt.com/ for details and registration.

Further information:

• International Conference on Teaching and Learning with Technology

Related links:

• <u>ICT Conferences</u>

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Programmes and Projects

Virtual music school becomes a reality

Students of popular musical instruments may soon be learning to play with the help of a new generation of intelligent, interactive computer programmes thanks to European researchers.

While it is unlikely, and most people would say undesirable, that computers can ever take the place of teachers, they are becoming an indispensable support tool in many subjects and this may soon also be the case with music.

As with most computer-aided teaching, the key to developing a musical tuition system is developing superior software able to hear and react to music being played, and to make judgments as to whether it is being played correctly.

This is what a consortium with partners from six European countries has been trying to do for the past three years in the <u>EU-funded Vemus</u> project – and if initial results are anything to go by they have succeeded.

The project's researchers set out to develop a teaching architecture and software platform for novice and intermediate level students of recorders, flutes, trumpets, saxophones and clarinets.

Project coordinator George Tambouratzis said the decision to focus on these particular instruments was made for two reasons. Firstly, it is considerably easier to develop a system for monophonic wind instruments like these than it would be for a polyphonic instrument, such as a piano. Secondly, the project partners did a survey in their home countries before the project got underway and found these were the five most popular instruments for beginner students.

They then decided to address three specific learning scenarios. In each scenario, a musical score is initially input into the platform so the system can then recognise it and check if the right notes are being played in the right sequence, using correct note durations. Any deviation from the score is noted by the system and fed back to the student.

The first e-learning scenario is self-practice, where a student practices a piece of assigned music at home. The student is able to improve his or her performance by taking into account the feedback from the Vemus platform.

The second scenario involves distance learning and is targeted at students who live a long way from a music teacher, perhaps on a remote island. A teacher can set the pupil tasks to perform via the distance learning platform and the student can then practice the set pieces over and over, each time getting feedback from the platform to show where things are going wrong. Once the student is happy with the work, it can then be submitted to the teacher for review via the platform. The teacher can then give a detailed assessment of the work, make comments on it and grade it.

The third learning situation is in a conventional classroom where collaborative learning and group activities can take place involving a teacher and several students. An example of this is the teacher getting one student to play a piece that the others follow as the score. The details of the performance – distributed simultaneously via a <u>wireless network</u> established by the platform – are displayed graphically on each of their personal PCs.

All of the instruments and the different types of platform have been field tested by project partners in different countries, including Sweden, Greece, Romania, Lithuania and Estonia.

According to Mr. Tambouratzis, the feedback to date has been good, although he stresses the final feedback will all be assimilated into an end of project report due in early 2009.

"Initial results show that students using Vemus learn more quickly than control groups studying the same music using conventional teaching methods," he said. "Motivated by interaction with their computers, the Vemus students also study longer and learn more pieces than the control group students," he said.

Although the project is ending, the website, from where teachers and students can download trial versions of the Vemus platform for free, has been licensed for a further three years. "Although everything still has to be finalised, it seems likely that the software will not be commercialised but will be made freely available to anybody who wants to use it," said Mr. Tambouratzis.

Already several schools and conservatories which were not involved in the project have expressed an interest in using the system, and publicity is encouraging others to join. Different curricula in different countries and specific local requirements are not a barrier, Mr. Tambouratzis said, as it is not complicated for teachers to load new scores into the system which has a multilingual interface available in a number of European languages.

Looking to the future, he said now the basic Vemus architecture has been put together it is quite easy to add new musical instruments to the modular system, although it would be more complicated to add polyphonic ones. Once the project is completed, the partners have some ideas for future projects to build on the work done already, he said, though discussions are still at an early stage.

Source: ICT Results

Further information:

• Virtual music school becomes a reality

Related links:

- Scratch a programming language with learning and education in mind
- ICT as a tool to enhance music-history learning

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Resources

White Paper Information and Communication Technologies (ICT) in Education for Development

Information and Communication Technologies can be an extremely powerful enabler in efforts to bring positive and sustainable development to countries around the globe. Almost a full decade into the 21st century, we now live amidst an unprecedented revolution in the advancement of ICT. We are also, however, surrounded by widespread poverty, and social and economic inequalities are the norm.

Considered as a powerful tool to promote social and economic development, education has become a primary focus of the recently forged Information and Communication Technologies for Development (ICTD) community, especially in the least developed countries. One way of ensuring equitable development targeted at the very poorest is through universal social protection, including education, health and income. The white paper aims to explain the current state of how ICT is being used in education and how it can better benefit current and future users.

The United Nations' Second and Third Millennium Development Goals (MDGs) are achieving universal primary education and promoting gender equality, respectively. The MDGs in education are defined in terms of participation and completion of primary education by all children and the elimination of gender discrimination in education.

ICT plays an important role in reaching these goals. Its ability to transcend time and space allows learning to take place 24 hours a day, seven days a week. This contributes immensely to the inclusion of traditionally excluded populations such as girls and women, ethnic minorities, and persons with disabilities - groups previously marginalized due to cultural, social and geographical circumstances. For the female population in particular, their increased access to education has a huge impact on the society.

Research by the United Kingdom Department for International Development has shown that a woman's income increases by 15 per cent for each year that she receives additional education past the primary level.

A major gap has always existed between affluent people living in developed societies with access to modern information technology and underprivileged people living in impoverished and rural communities in developing and least developed countries. Even today, an unequal adoption of technology excludes many from harvesting the fruits of the digital economy.

While there is agreement that ICT can be a powerful tool for advancing education efforts going forward, the challenge we face is turning the potential of Information and Communication Technologies for Education (ICTE) into reality with results. This is a tremendous challenge, compounded by the realistic fears that if not used properly, ICT can increase existing social and economic inequalities, particularly if access and use of ICTE is not equally available to everyone. Implementation of ICTE must be case specific and locally driven, or the development community may risk further isolating impoverished populations rather than promoting inclusion and social advancement.

In addition to the dangers of further isolating already marginalized groups, evidence from ongoing projects around the world reveal that effective implementation of ICTE initiatives is extremely challenging. Imagine a remote village in Sub-Saharan Africa and some of the potential challenges to overcome when introducing ICTE to those

living there. Is there adequate government support and funding for the projects? Is there infrastructure and connectivity for computers in the schools? Have the teachers ever used computers before and are they willing to adopt their teaching styles to do so? These are only a few of the many questions one would face when attempting to bring ICTE to areas that may not be as familiar with the concept.

The Global Alliance for ICT and Development (UNDESA-GAID), an initiative approved by the United Nations Secretary-General in 2006, was created to approach and overcome these challenges. UNDESA-GAID uses an inclusive, multistakeholder approach to tackle the various challenges in bringing ICT to the developing world, including ICTE. Under UNDESA-GAID's supervision and in collaboration with their extensive network of experts in the ICTD field, this paper draws upon country case studies and their experiences with ICTE thus far.

Research revealed countries are beginning to realize the extraordinary potential of ICTE but are encountering tremendous challenges in bringing that same potential to life. First, the paper discusses the role and importance of ICTE. Next, using examples from specific country case studies, it addresses common challenges countries are facing in integrating ICTE and viable solutions attempted to overcome these challenges. Finally, the paper presents a list of policy recommendations to various stakeholders involved in ICTE to provide a roadmap for successful and transformative education development using ICT in the future.

Read the paper:

• White Paper Information and Communication Technologies (ICT) in Education for Development

Related links:

- <u>UN helps Asia-Pacific countries expand access to communications technology for development</u>
- <u>Technology and innovation can help expand education for all</u>
- Educational technology debate: Exploring ICT and learning in developing countries
- <u>UN launches remote training on information communication technology for development</u>

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Gender differences in teacher computer acceptance

Teachers' computer acceptance is an important factor to the successful use of computers in education. This article explores the gender differences in teacher computer acceptance.

The Technology Acceptance Model (TAM) was used as the framework to determine if such differences are present. Survey questionnaires were administered to 186 preservice teachers, the questionnaire consists of two independent variables (perceived usefulness and perceived ease of use), together with the dependent variable (intention to use).

The results of model testing using LISREL (Linear Structural Relations) indicated that the two independent variables, perceived usefulness and perceived ease of use, directly affect the intention to computer use as stated in the TAM.

Furthermore, significant gender differences in computer acceptance were also found:

- (a) perceived usefulness will influence intention to use computers more strongly for females than males:
- (b) perceived ease of use will influence intention to use computers more strongly for females than males; and
- (c) perceived ease of use will influence perceived usefulness more strongly for males than females.

Impacts and implications to teacher professional development are also discussed.

Read the papern:

• Gender differences in teacher computer acceptance

Related links:

- Gender, subject and degree differences in university students' access, use and attitudes toward ICT
- 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
- <u>Technology-based vocational skills training for marginalized girls and young women</u>
- Gender and ICTs for Development: A Global Source Book

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Background paper for identifying the best practice of ICT implementations in Asia and the Pacific

The purpose of the paper is to illustrate the status of ICT initiatives and implementations which aim to bridge the digital divide. More precisely, the paper aims to help assess how many people, what kind of groups of people and which regions have been left out from accessing ICT, and to identify the main problems of further expanding ICT access which is the foundation of an inclusive information society. Without such foundation, meaningful utilization of ICT for development would not be feasible.

First, this paper introduces the current situation of the digital divide in Asia and the Pacific. Using and comparing the latest statistical data, it provides a bigger picture of ICT access through examining ICT penetration rate and nature of the digital divide in this region. Second, the paper discusses some latest technologies, such as broadband, wireless, and space technology, which could bridge the digital divide as significant access methodologies: This helps to determine which methodology is suitable to bridge the digital divide in certain localities and under certain conditions.

Finally, the paper identifies major and strategic ICT projects, mainly at the regional, sub-regional, and national levels, which have been undertaken in Asia and the Pacific with a view to expanding ICT access.

Read the paper:

• Background paper for identifying the best practice of ICT implementations in Asia and the Pacific

Related links:

- <u>UN helps Asia-Pacific countries expand access to communications technology for development</u>
- Asia and Pacific Database on Education launched Giving policy makers and practitioners evidence for action
- The conditions and level of ICT integration in Malaysian Smart Schools
- Pacific ICT Ministers set priorities to "connect the unconnected"

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The Literacy Project

A resource for teachers, literacy organizations and anyone interested in reading and education, created in collaboration with LitCam, Google, and UNESCO's Institute for Lifelong Learning. Find books, articles and videos about literacy, or start your own literacy or reading group!

Further information:

• Google Literacy Project

Related links:

- Freereading
- Technology and innovation can help expand education for all
- <u>A "smarter" Thailand through ICT Target to boost ICT literacy and</u> computer use
- Mobile phones make literacy real

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Dabbleboard is an online collaboration application that's centred around on a whiteboard. The innovative interface lets users draw almost as naturally as they would on a real whiteboard, enabling them to quickly and spontaneously share ideas.

Further information:

Dabbleboard

Related links:

- Hong Kong primary school bolsters interactive learning
- <u>Using Student Response Systems to increase motivation, learning, and knowledge retention</u>
- Singapore schools go high-tech
- Tips for making ICT an integral part of the educational process

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