Announcement

News on ICT in Education

News & Events

13th UNESCO-APEID International Conference: Ready, get set, go!

The organizers of the 13th UNESCO-APEID International Conference (15-17 November 2009, Hangzhou, China) have started the countdown to the conference and have announced the names of the invited speakers and the latest news.

US computer giant and UN expand scheme to stem "Brain Drain" from poor states

More than a dozen universities in Africa and the Middle East will benefit from a joint project between UNESCO and computer company HP that seeks to provide the technology and tools needed to stem the migration of graduates and reduce the "brain drain" from the regions.

Information technologies vital to tackling climate change – UN Secretary General UN Secretary-General Ban Ki-moon urged participants of a global forum in Geneva to think of creative ways to use the latest technology to raise awareness about climate change.

Revolutionizing higher education

Universities need to transform in various ways if they are to respond effectively to the socio-economic and technological demands of today's world. But despite the many challenges and opportunities, many universities continue to be bureaucratic and rigid in their functioning.

International Symposium on Open, Distance and E-Learning 2009

The International Symposium on Open, Distance and E-Learning (ISODEL) will be held in Indonesia at the Sheraton Mustika Yogyakarta Resort and Spa, Yogyakarta, Indonesia 8-11 December 2009.

Programmes & Projects

Information technology: A driver for peace in Mindanao

How do you prepare Filipino people for jobs in the global economy and reduce conflict in the Mindanao region? United Nations volunteer working with Cisco Networking Academy, Roy Lopez Pamitalan, thinks he has the answer.

Resources

Are girls really excluded from ICT, or is this just a misconception?

In the early years of the Internet, the typical user was young, male and most likely to be American. In the last ten years, the picture has changed significantly, with women representing a larger proportion of Internet users, at a range of different ages. However there is still concern among both governments and the ICT industry that girls are excluded from ICT – is this reality, or just a misconception?

Gender-based issues and trends in ICT applications in education in Asia and the Pacific

An overview of strategies and initiatives being undertaken in the Asia-Pacific region that are leading the way in putting information and communication technologies to work for gender equality.

Distance education: An option for increasing access and improving quality in secondary education

This document examines distance learning as an option for secondary education in developing countries. It also offers four models of distance education as well as incountry examples.

Google Books

Google Books is an online service which allows users to search, read and even download the full text of millions of books which are "Public Domain".

Web 2.0 tools for teachers

This is a manual for EFL and ESL teachers describing to use a number of web-based tools and learning technologies to assist in language development.

13th UNESCO-APEID International Conference World Bank-KERIS High Level Seminar on ICT in Education

ICT Transforming Education

15-17 November 2009 Hangzhou, People's Republic of China

Ready, get set, go!

We have started the countdown to the conference. Here's a peek at the list of invited speakers:

- **Gwang-jo Kim**, Director, UNESCO, Asia-Pacific
- **Shelly Esque**, Vice-President, INTEL, USA
- **Nancy Law**, Professor and Head of Information Technology Studies, University of Hong Kong, People's Republic of China
- Jonathan Anderson, Emeritus Professor, Flinders University, Australia
- Jeff Mao, Director, Main Learning Technology Initiative, USA
- Chen Xin, Vice-President, Shanghai TV University, People's Republic of China
- Jung Keun Lim, Vice President, Kyung Hee Cyber University, Republic of Korea
- Asha Kanwar, Vice-President, Commonwealth of Learning, Canada
- **Mary Thorpe**, Professor, Institute of Educational Technology, The Open University, United Kingdom
- Anita Dighe, Director, Directorate of Distance Learning, India
- Tae-Rim Lee, Professor, Korea National Open University, Republic of Korea



Be prepared for an unusual launch of **UNESCO's e-learning modules**:

Module 1: ICT Essentials

Module 2: ICT in Education Decision Making

And join the hands-on **Introduction to ICT in Education Teacher Training Resources**. But be forewarned - you have to bring your own laptops!

Register online or contact the Conference Secretariat for further information.

See you in Hangzhou!

The 13th UNESCO-APEID International Conference, in conjunction with the World Bank-KERIS High Level Seminar on ICT in Education, provides a forum for participants to share experiences on how they can use ICT to transform educational systems and increase the reach and quality of education, with particular focus on:

- Developing ICT in Education Policies and National Master Plans;
- Promoting Effective Management and Applications of ICT in Schools;
- Improving Quality and Efficiency of Higher Education through ICT;
- Enhancing Innovations in Open and Distance Learning;
- Preparing the Next Generation of Teachers;
- Using ICT to Promote Literacy and Life-long Learning;
- Monitoring and Measuring Impact of ICT in Education.

Conference Fees

International participants USD\$ 350
International student* USD\$150
Group registration** USD\$250 each

- * Students must study full time and must provide valid student ID
- ** For five or more individuals from the same organization/institution

Send bank draft payable to "UNESCO" UNESCO-APEID International Conference Secretariat UNESCO Bangkok 920 Sukhumvit Road Bangkok 10110, Thailand

For more information and to register for the Conference, visit http://www.unescobkk.org/education/apeid/conference/china

Further information:

• 13th UNESCO-APEID International Conference on Education and World Bank-KERIS High Level Seminar on ICT in Education

Related links:

• ICT in Education - UNESCO Bangkok

Previous issues of the e-newsletter:

• UNESCO "ICT in Education" Announcement e-newsletter

What do you think about this topic?

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US computer giant and UN expand scheme to stem "Brain Drain" from poor states

More than one dozen universities in Africa and the Middle East will benefit from a joint project between UNESCO and US computer company Hewlett-Packard that seeks to provide the technology and tools needed to stem the migration of graduates and reduce the "brain drain" from the regions.

Building on the successful pilot phase of the project – which benefited institutions in Algeria, Ghana, Nigeria, Senegal and Zimbabwe – 15 universities will be involved in its expansion.

Those schools are in Burkina Faso, Cameroon, Côte d'Ivoire, Ethiopia, Kenya, Kuwait, Lebanon, Morocco, Senegal, Tunisia and Uganda.

The "Brain Gain Initiative," set up in 2003, allows schools to collaborate with experts worldwide in innovative education and research projects with the help of advanced grid and cloud computing technologies, which are hardware and software infrastructure that clusters and integrates high-end computer networks, databases and scientific instruments from multiple sources to form a virtual environment.

It seeks to quell the exodus of academics and scientists, who have the potential to contribute to the development of their home country.

"We have suffered in the past from our best talents leaving Senegal to further their careers elsewhere," said Ibrahima Niang of Senegal's Cheikh Anta Diop University, one of the beneficiaries of the scheme during its pilot phase.

"This project helps us to plug into the world of research," he said. "We can build connections with colleagues in other countries, which benefit our own work, and this link also provides an opportunity for our own academics and researchers to further their careers from Senegal."

An expert from France's National Centre for Scientific Research helped set up a computer grid in the West African nation, the first in sub-Saharan Africa.

UNESCO and Hewlett-Packard hope that 100 universities can be reached by the initiative by 2011 with the help of additional partners.

Further information:

• <u>US computer giant and UN expand scheme to stem "Brain Drain" from</u> poor states

Related links:

- Brain gain initiative
- HP grid initiative
- Revolutionizing higher education
- ICT changing the face of higher education
- UN announces launch of world's first tuition-free, online university
- Re-organizing universities for the information age

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Information technologies vital to tackling climate change – UN Secretary General Information and communication technologies are vital to tackling climate change, Secretary-General Ban Ki-moon told a global forum in Geneva, urging participants to think of creative ways to use the latest technology to usher in a green economy.

Organized by the United Nations International Telecommunication Union (ITU) every few years, Telecom World is a unique event for the information and communication technology (ICT) community which brings together the top names from across the industry and around the world.

"We all know that ICTs have revolutionized our world," Mr. Ban said as the week-long event got under way. "My main interest is how these technologies are creating new possibilities for the United Nations to achieve its goals of peace, human rights and development.

"ICTs are also very vital to confronting the problems we face as a planet: the threat of climate change. Indeed, ICTs are part of the solution. Already, these technologies are being used to cut emissions and help countries adapt to the effects of climate change."

Mr. Ban noted that earlier this year, the UN teamed up with mobile phone companies and other partners to install 5,000 new weather stations across Africa. The weather stations will monitor the impact of climate change, and when there is news, text messages will be sent immediately to farmers' mobile phones.

In addition, information technologies are being used to raise awareness about climate change. The secretary-general noted how the UN has mobilized young people to use Internet tools such as Facebook and Twitter in support of its campaign to seal a deal on climate change in December at the global conference in Copenhagen aimed at developing a new treaty to curb greenhouse gas emissions.

UNEP also created a Twitter for Trees' project, in which one tree was planted for each of the more than 10,000 people who signed up.

"I am sure you in this room can think of even more creative ways to use ICTs to usher in a new green economy," said Mr. Ban. "Let us work together to find new ways to cut waste, reduce emissions, create jobs, protect against disasters and promote better standards of living."

The secretary-general also pointed to some progress, thanks in part to information technologies, in efforts to achieve the global anti-poverty targets known as the Millennium Development Goals, while stressing that much more needs to be done to improve the lives of millions of people by the target date of 2015.

The ITU pointed out that while ICTs provide unprecedented opportunities to accelerate social and economic development, communities that currently lack access and knowhow are being further marginalized. It is, therefore, encouraging its Member States to adopt school-based community broadband plans to bring ICT access to disadvantaged and vulnerable groups.

The agency's "Connect a School, Connect a Community" initiative aims to facilitate public-private partnerships that will help countries establish school-based ICT centres.

ITU Secretary-General Hamadoun Touré welcomed the initiative as an important milestone in improving broadband access globally.

"Designed not only for students but also for the communities in which they live, smart policies and innovative public-private partnerships promoting school-based community ICT centres represent an attractive, affordable and scalable step forward in addressing the digital divide."

Mr. Ban also welcomed the initiative, noting that connected schools can become connected community ICT centres, which can provide a vital link to marginalized and vulnerable groups. "They can become an information lifeline for women, indigenous people, persons with disabilities and those living in rural, remote and underserved areas," he stated.

He also stressed the need for teamwork in turning this goal into reality, and emphasized the importance of political will. "I urge world leaders to support this effort and take the needed steps to meet the agreed targets of connecting all schools by 2015."

Meanwhile, the head of the Joint UN Programme on HIV/AIDS (UNAIDS) said the explosion of mobile technology presents a great opportunity to scale up the AIDS response in poor countries.

"Harnessing technology in creative ways will help us reach people in need. I want universal access to HIV prevention, treatment, care and support services to be as ubiquitous as mobile phone coverage," said Michel Sidibé.

According to UNAIDS, the millions of people in developing countries who had been left behind by the digital divide are now able to access health information and health care services at their fingertips through mobile technology. Mobile phones are being used as low-cost tools for HIV testing, data collection, epidemic tracking, and training of health workers, HIV prevention and treatment support.

While in Geneva, the Secretary-General also introduced former Soviet president Mikhail Gorbachev, the guest speaker at a lecture series focusing on "Resetting the Nuclear Disarmament Agenda."

He noted that after many years of lying dormant, the goal of a world without nuclear weapons is "back where it belongs: at the top of the global agenda".

Mr. Ban paid tribute to the leadership of Mr. Gorbachev, describing him as a "giant in the global effort to achieve a nuclear-weapon-free world".

Mr. Ban said: "He has made his mark through his pioneering efforts at the helm of his country... through his own nuclear disarmament proposals... through his tireless

advocacy... and through the work of his foundation and with non-governmental organizations (NGOs) around the world.

Further information:

• <u>Information technologies vital to tackling climate change – UN Secretary</u> General

Related links:

- ITU
- Telecom: Tools connecting the world and communicating about HIV
- Information, Communication Technology Vital to Confronting Threat of Climate Change, Secretary-General Tells International Telecommunication Union Event
- <u>Delegates in Committee on Information Stress Need for Better</u> Coordination, New Technology in Getting United Nations Message out
- UNEP promotes online science in the developing world
- <u>Innovative Teachers' Conference on "ICT for ESD: Seeing Farther, Thinking Deeper"</u>
- Ecological Footprint Calculator

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• UNESCO "ICT in Education" Announcement e-newsletter

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Revolutionizing higher education

Universities need to transform in various ways if they are to respond effectively to the socio-economic and technological demands of today's world, according to internationally respected scholar Manuel Castells. But despite the many challenges

and opportunities facing universities, many "continue to be corporatist and bureaucratic", rigid in their functioning and primarily concerned with defending their own and professors' interests.

The global knowledge economy and society is based on processing information, which is also what universities are primarily about, Mr. Castells said during a lecture on higher education delivered at the University of the Western Cape in South Africa recently.

"Therefore the quality, effectiveness and relevance of the university system will be directly related to the ability of people, society and institutions to develop."

In the context of technological and communication revolutions, universities are central actors in scientific and technological change and in training a labour force suited to new conditions of production and management. They are also critical contributors to democratisation and social equality (or lesser inequality), and sources of cultural renewal and innovation linked to the new forms of living people are entering.

Being institutions that process information, universities have themselves been dramatically affected by technological changes. Information and communication technologies are deeply affecting the functioning and culture of the university, "sometimes without full knowledge of what's happening and without controlling these processes."

To try to understand processes of change, Mr. Castells took an historical perspective of higher education, seeing individual universities as fulfilling different functions that are accentuated in some universities at some moments of history, but combine and recombine, depending on the emphasis on the function.

So Mr. Castells' notion is of the university system, not just universities, "because different units provide different functions and the whole system has to combine these different functions".

An early function of universities was to produce values and legitimatisation. All the world's major universities began as theology schools - producers of values and social legitimisation - while non-religious universities played a similar role in, for instance, producing imperial values or justifying domination and western superiority in the colonial world.

The second important historical function of universities was the selection of the elite within society - establishing a social stratification in society through the selection into some universities, such as the US Ivy League institutions, the Grandes Ecoles in France, and Cambridge and Oxford in the UK. In some countries, 90 per cent of those who govern business and politics come from such universities, so the section of elites is "extremely important, then and now", said Mr. Castells.

The third function, in historical sequence, was training the labour force. The "professional university" in fields such as medicine, law and engineering, was critical to the development of industrialisation. Examples are the Federal Polytechnic School of Lausanne, or Caltech in the US.

Fourth was a later, mostly German invention, the "science university" whose primary function is the production of scientific knowledge. An early example was Humboldt in Germany and, in the US, Johns Hopkins and the "land grant" universities, which produced science to develop specific industries that were important for the country.

A fifth function was "generalist" universities that emerged to elevate the level of education of the population at large. These were the post-World War II universities developed in Europe, Latin America and Africa after independence. "Everybody should be able to go to university. That's why it was so important to keep the other functions in relatively separate institutions, not to be overwhelmed by mass education - and that's what happened in all countries," said Mr. Castells. Last, "entrepreneurial" universities centred on innovation and the connection between the world of science and technology, and the business world and the enterprise world." The classic example is Stanford, a great scientific university that connects constantly to the business world. MIT moved decisively in that direction, and many other universities - such as in Singapore - followed this model. The notion is a close interaction between being top in science while developing an entrepreneurial system.

Every country, Mr. Castells said, developed systems in which different universities fulfil one or some of these functions, which are combined in different ways across the system. "One of the key issues is how to articulate these different functions without downplaying one or the other.

"For instance, it's obvious that not every university can be a research university. But at the same time, every university has to have access to research centres that exist in the university system for specific purposes and may develop a small nuclei of research linked, on the one hand, to the needs of society and the economy and, on the other hand, fed by the networks of research that can be constructed in the entire university system," he explained.

"Moreover, because we are in a global economy and in a global research system, the notion of universities being stand-alone, major research centres is gone. The critical thing is to be in the networks of global production of knowledge, of research and innovation."

To obtain a 'ticket' to enter one of the global networks, a university either has to be the best in the field or to provide something that is interesting enough for all the other participants to want it in. "The internet is crucial," said Mr. Castells. Academics don't have to travel to other research centres but can connect, research and diffuse results via the Internet.

In the current global knowledge economy, he said, knowledge production and technological innovation are the most important productive forces. Without some level of a national research system composed of universities and private and public research centres, no country can participate in the global knowledge economy.

Today, the most important resource of all is the human mind. "There are endless examples of how betting on the human mind has been decisive for the development of countries."

The once-poor East Asian economic tigers have one thing in common - very good education systems at all levels, based on the traditional values of education and also on investment by government and companies in education. Another example is Mauritius. There is a direct correlation between the capacity to invest in education and in universities, and both the level of economic growth and human development, said Mr. Castells.

Universities also have a major role in producing a quality labour force - which depends on quality education, which depends on educators who have been trained by quality universities. You can build schools and provide laptops, he said, but "if there are no good teachers there's no good education". This requires good working conditions and pay, and respect for teachers, and "it all starts with being well trained at the level of the university".

The type of training needed today is 'learning to learn' – "constant reprogramming of skills in a constantly changing economy, technology, and socio-cultural environment," continued Mr. Castells. "The information we need is on the Internet - if you know how to look for it and what to do with it." It is no longer necessary to implant knowledge in young people's minds - it is likely to become obsolete anyway.

The ability of people to recycle knowledge and skills requires two things: that education creates 'self-programmable' people able to change and move between occupations, and retraining through life via high quality distance education delivered through the Internet.

Mr. Castells argued that distance education has become critical. "Developing countries have to leap-frog dramatically, and can only leap-frog by using virtual education to teach those who are already at work." Face-to-face learning is inefficient and burdensome in retraining people. Developing nations need to gear their distance providers towards mass lifelong learning.

A further function of universities remains the production and consolidation of values – "ethical values, personal values and the formation of flexible personalities...We need to train students to have a few solid values - not lots of principles that are impossible to follow."

Higher education needs to develop pedagogic models that do not give precise instructions on how to behave, but give people the capacity to reorganise their lives. "This fundamental function of the university is not taken seriously by any university that I know, although some are starting to think about this."

Interdisciplinarity, Mr Castells continued, might be a bad word in many academic circles but is what the world now requires. But why is interdisciplinarity, which is so obviously needed, so difficult? "Because disciplines are peace treaties between warring factions. Reach the river where chemistry and physics divide and then, okay, you don't cross, I don't shoot."

As a result, interdisciplinarity is only practised in some disciplines, such as communication or city and regional planning. "I always end up in these disciplines

simply because I feel freer. I don't have to demonstrate if I am a sociologist or an economist or a political scientist. But try to recruit the political scientist in a sociology department - no way!"

It is thus essential for interdisciplinarity to be promoted by universities. The University of Southern California, for example, rewards interdisciplinary academics with a higher salary, and there are special chairs for interdisciplinary scholars.

Experience shows that there need not be differences between public and private universities in terms of efficiency and quality - both types of institution can be great. What matters is how flexible, efficient and competitive a university is, so its management is critical. Also essential is that university serve the public interest. "You can be in the public interest and be private. But if you are not in the public interest then you become a business."

Finally, the technological transformation of the university has to be tackled seriously, Mr. Castells said. "We are already in a system that is hybrid" - face-to-face and virtual because scholars and students work on the Internet and email, and are constantly connected. "But all this is happening without any real policy, any transformation of the pedagogic method of the university". Contact universities need to embrace the notion of e-learning as a critical form.

"All of this depends on the capacity of the university to keep its autonomy. We're the last space of freedom...in society and it's essential to preserve not only for scientific reasons, but for social and political reasons. At the same time we have to earn this autonomy and freedom every day and use it in the public interest, not in the defence of our privileges.

"If we combine these two things we can continue the tradition that started 1,000 years ago. If not, pressures of society will destroy the university as a space of reflection and innovation," he added

Author: Karen MacGregor, 11 October 2009, University World News, Issue: 0096

Further information:

• Revolutionizing higher education

Related links:

- <u>University World News</u>
- Sri Lanka Launches National ICT in Education Drive

- <u>Pakistan develops long-term strategic plan for integrating ICT in</u> Education
- ICT changing the face of higher education
- Future of higher education: How technology will shape learning
- <u>Technology companies lead collaboration to improve global education</u> assessments

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• UNESCO "ICT in Education" Announcement e-newsletter

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International Symposium on Open, Distance and E-Learning 2009

The International Symposium on Open, Distance and E-Learning (ISODEL) will be held in Indonesia at the Sheraton Mustika Yogyakarta Resort & Spa, Yogyakarta, Indonesia 8-11 December 2009.

The theme of this year's annual meeting is, Education in the Digital Era: Continuous Professional Development for ICT-Based Learning.

Keynote speakers will include Indonesian representations such as the Minister of National Education, the Coordination Minister of People Welfare and the Minister of Information and Communication, as well as the President of International Council for Open and Distance Education.

The symposium aims to acquire ideas, share knowledge, disseminate best practices and convey recommendations for future development. Topics such as the emerging ICT for Education, international experience in ODEL, ICT-based learning and continuous professional development for teachers, will be discussed. Further details such as the list of plenary speakers, registration and sponsorship, please visit the website of the Conference:

http://isodel.depdiknas.go.id/index.php?option=com_frontpage&Itemid=1

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Further information:

• International Symposium on Open, Distance and E-Learning 2009

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Information technology: A driver for peace in Mindanao

How do you prepare Filipino people for jobs in the global economy and reduce conflict in the Mindanao region? A United Nations Volunteer working with Cisco Networking Academy, Roy Lopez Pamitalan, thinks he has one answer.

Since 2005, Mr. Pamitalan has worked as the United Nations Volunteers (UNV) IT Specialist in the Mindanao areas of the Philippines, with particular focus in the Autonomous Region of Muslim Mindanao and Conflict-Affected Areas of Mindanao. Through his work with the Cisco Networking Academy, Mr. Pamitalan's goal is to engage the academic community into a new working culture to bridge the digital divide. He believes the cycle of conflict in Mindanao can be interrupted if people have alternative futures through opportunities to engage in the global workforce.

An engineer by profession, Mr. Pamitalan's work forms part of the Cisco Networking Academy programme, which is a partnership between the Mindanao State University — Iligan Institute of Technology (MSU-IIT), Iligan Computer Institute, and other organizations, such as the Rotary Club of Iligan Bay. The programme promotes digital opportunities, encourages female inclusion in IT education and industry, and contributes to the economic development of Mindanao.

Mr. Pamitalan has travelled in the region extensively to reach out to public schools and other educational institutions to deliver IT training. His travel in conflict-affected

areas with security concerns shows his commitment to his cause. "Enhanced IT skills for students from less privileged families living in conflicted-affected areas will open new opportunities to improve their future life situation. Over time, employment opportunities in industries improve locally and internationally and students from Mindanao can become advocates of peace as an option to the conflict," he said.

Professor Ernesto Empig, Department Chairperson of the MSU-IIT's Department of Electronics Engineering and a coordinator of the Networking Academy's IT Essentials Training, echoed Mr. Pamitalan's comments: "The economic development of a nation depends largely on the quality of acquired education. Through the Cisco Networking Academy programme, we strive to excel IT education in the region and create an environment that is conducive to peace."

The UNV and Cisco, the world's largest network technology company whose products are designed to transform the way all people connect, communicate and collaborate, have worked in partnership since 2000 to improve IT training opportunities for underserved populations worldwide. To date, Cisco has sponsored more than 110 UNV volunteers in 40 countries.

"The Cisco Networking Academy programme demonstrates a collaborative approach and commitment by local communities to address the digital divide and how collectively we can uphold peace-building processes in Mindanao," said Jacqui Badcock, the Resident Representative of the United Nations Development Programme (UNDP) which administers the UNV programme.

The potential of this programme to improve the lives of people in Mindanao and promote stability in the region has not been lost on other movers and shakers in the community. Dr Emmanuel M. Lagare, Vice-President of Academic Affairs in the MSU system, is planning to replicate the programme in MSU's other campuses in Mindanao. "The Cisco Networking Academy program has broadened employment opportunities for the students and helped us to design and develop a non-degree curricular program in the MSU system. This programme will equip participants with marketable IT skills in today's demanding job market," he said.

Ladislao Tabanao has also integrated the Cisco Networking Academy program in his regular courses at the Iligan Computer Institute to better serve marginalized people." As well as building students capabilities in essential computer skills this programme gives students insights and experience into real situations within large companies," said Mr. Tabanao who won the Entrepreneur Award in this year's Search for The Outstanding MSU-IIT Alumni.

"The Cisco Networking Academy programme complements TESDA's (Technical Education and Skills Development Authority) existing Technical and Vocational Education and Training and gives successful students the competencies to compete in the global IT market."

MSU-IIT remains steadfast in pursuing developments in the IT infrastructure not only for instructors but also for other individuals who will benefit from the programme. Professor Jeremy Pinzon, Dean of MSU-IIT School of Computer Studies, made the following comments about about Cisco: "Cisco is synonymous with reliable IT

Essentials; we are confident of advocating ICT competencies, knowing that we are using quality-assured training materials and equipment as well as having quality trainers."

The UNV programme is inspired by the conviction that volunteers can transform the pace and nature of development and by the idea that everyone can contribute their time and energy towards peace and development.

With its partners, UNV advocates the use of volunteers, integrates volunteers into development planning and mobilizes volunteers. The enormous potential of volunteers is an inspiration to UNV and to volunteers around the world. Delivering on that potential is UNV's mission.

Written by Venus Parmisana and Hiroyuki Takita

Further information:

• Information technology: A driver for peace in Mindanao

Related links:

- Technology and innovation can help expand education for all
- Online portal for the exchange of information on technical and vocational education and training
- <u>Technology-based vocational skills training for marginalized girls and young women</u>
- Using ICT as a tool to promote peace

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Resources

Are girls really excluded from ICT, or is this just a misconception?

In the early years of the Internet, the typical user was young, male and most likely to be American. In the last ten years, the picture has changed significantly, with women representing a larger proportion of internet users, at a range of different ages. However there is still concern among both governments and the ICT industry that girls are excluded from ICT – is this reality, or just a misconception?

What do girls do with ICT, and is there any difference compared to boys? In countries where internet access is common, young people in general are heavy users of ICT tools, particularly in leisure time. Girls are particularly fond of social networking tools, blogs and other tools that enable communication with peers. Increasingly, they are playing games on handhelds or consoles, but also online. This compares to boys, who tend to focus more on games (online or handheld/consoles). Girls are also more keen on creative technologies for artistic expression, compared to their male counterparts.

How do girls and boys differ in educational achievement in ICT? According to our research in the White Paper on "Women and ICT: Why are girls still not attracted to ICT studies and careers?" at secondary school level, there is very little difference between boys and girls in terms of achievement in ICT studies – although their self-perception is different. Girls tend to understate their skills whereas boys usually overestimate their competence.

Girls often report that they enjoy studying ICT. In countries where this is not the case, it is typically due to an over-emphasis on pure programming skills in the curriculum – which is typically less attractive to girls compared to e.g., multimedia skills.

However there is a major issue in transition to tertiary level – most girls "drop out" of ICT studies in favour of other subject areas such as foreign languages. This is in part explained by the fact that girls often study fewer related technical subjects (e.g., maths, physics) than their male counterparts (despite having comparable levels of achievement) and these subjects are pre-requisites for higher education in ICT. They also believe that ICT studies will not give them sufficient opportunities for creativity and team working compared to other fields.

So what's causing the problem?

Girls, compared to boys, are more influenced by role models in their environment – whether "close" role models such as parents, teachers and family or "distant" role models such as famous actresses and musicians. It is clear that the lack of ICT-oriented role models is a dissuading factor for girls: their role models don't see ICT tertiary studies or ICT careers as female-friendly and this attitude impacts negatively on the girls that look up to them.

Similarly, their choice of more technical subjects such as maths and physics at upper secondary and tertiary level is influenced by role models' perception of gender dominance.

Another key issue is that parents, school guidance counselors and teachers lack knowledge of ICT studies and careers: they thus do not encourage students who express interest in such areas, as they perceive ICT as a field where there are good career opportunities for girls.

Finally, girls often express a need to "help the world" with their future careers: ICT is not a field in which they feel they can do this.

How can we address these issues through the education system? There are numerous areas where improvements could be made in education to encourage girls to participate more actively in ICT, for instance: Integrate ICT better into a variety of subjects, so that ICT skills are acquired in a range of contexts (e.g., using ICT tools as part of language lessons).

For countries where girls dislike ICT curricula, revise curricula to encourage acquisition of broader IT skills to include creative technologies (e.g.' graphic design, video editing) as well as programming.

To encourage further female uptake of ICT at tertiary level, involve more female IT professionals and female IT students in careers activities in schools (e.g. through inviting guest speakers in schools, or visiting local IT company facilities/university departments), ideally involving parents in the process and demonstrating how ICT contributes to solving societies challenges (e.g. environment, healthcare).

Organization of informal ICT activities, such as computer clubs, alongside the school curriculum that give young people the space to "play" with ICT which is not feasible within the usually packed daily schedule.

Written by Alexa Joyce, European Schoolnet

Further information:

• Are Girls Excluded From ICT, Or Just Perceived So?

Related links:

- White Paper on "Women and ICT: Why are girls still not attracted to ICT studies and careers?"
- My Path to ICT Success: Professional Development
- Women Succeed in ICT with Parents and Role Models
- Photo contest on promoting gender equality in education
- 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
- From veil to camera: Empowering women through skills training

Previous issues of the e-newsletter:

• UNESCO "ICT in Education" Announcement e-newsletter

What do you think about this topic?

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Gender-based issues and trends in ICT applications in education in Asia and the Pacific

Gender is a factor in every aspect of formal, non-formal and informal education, and has an impact on all participants: learners, teachers and administrators. The issues examined in this study are drawn from all facets of the educational system and the strategies have relevance across sectors. In particular, formal education has a great deal to learn from strategies being used in the non-formal sector, and some of the initiatives being undertaken in the Asia-Pacific region, as described in the study, are leading the way in putting information and communication technologies (ICTs) to work for gender equality.

The emphasis is on ICT applications and models that hold promise in assisting with the achievement of Education for All (EFA) goals, specifically Goal 3, to "promote gender equality and empower women." The focus is on Asia and the Pacific; however, examples are included from other regions where they suggest models that lend themselves to broader application. One of the strongest messages that emerges from research on the effective use of ICTs in the education of women is the need to use appropriate technology. The examples outlined in the report look at the newer ICTs, computers and related services such as e-mail and the web, and also include the use of broadcast technologies, such as radio and television, as well as audio and videotapes.

Along with an endorsement for the more traditional ICTs, there is an equally strong message that women and girls must not be left behind in the digital revolution. The digital divide includes a gender divide, especially for rural and marginalised women, and the newer ICTs have the capacity to allow us to benefit from the full contribution of women.

Read the full study:

• Gender-based issues and trends in ICT applications in education in Asia and the Pacific

Related links:

- Photo contest on promoting gender equality in education
- Gender and ICT
- <u>Technology-based vocational skills training for marginalized girls and young women</u>
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Distance education: An option for increasing access and improving quality in secondary education

This document examines distance learning as an option for secondary education in developing countries. It also offers four models of distance education as well as incountry examples.

This paper identifies the need for developing nations to adapt secondary education in order to increase participation and success. It examines several different issues:

- economic development;
- strengthening democracy and social cohesion;
- prioritizing primary vs. secondary education;
- challenges in the expansion of secondary education;

- macro-economic, access, quality and cost issues;
- distance learning as an option;
- distance education models.

Further information:

• Distance education: An option for increasing access and improving quality in secondary education (pdf)

Related links:

- Improving Educational Quality
- Development Gateway
- UN announces launch of world's first tuition-free, online university
- China promotes distance education through the "Classroom on the Air"
- Recurring issues encountered by distance educators in developing and emerging nations
- ICT-based distance education in South Asia

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Google Books

Google Books is an online service which allows users to search, read and even download (PDF) the full text of millions of books. The Google Library Projects partnered with major US universities and institutions such as Harvard University, the University of Michigan and the New York Public Library to scan and make searchable their vast library collections. These texts are stored in Google's rapidly growing digital

library which include the EPUB format, allowing users to access digital books with other electronic devices, i.e. phones, netbooks, and e-ink readers that don't render PDF.

Google Books not only make available many old classics and out of print books to scholars and avid readers, the digital book service will allow much greater information access for a wider set of the world's population. With more and more rural communities gaining access to the Internet, education will no longer be limited due to a lack of physical books. At the same time, public domain texts in digital form are more affordable. These online books can be accessed for just a fraction of the cost compared to hard copies at the stores.

Thought Google Books can increase immense access to knowledge and education, it only benefits those who read English, as millions of the digital books Google provides are predominately in English.

Further information:

• Google Books

Related links:

- "Own Your Own Library" is the theme of the 2008 World eBook Fair
- Next generation textbooks
- Tikatok: Kids create and publish books

Previous issues of the e-newsletter:

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Web 2.0 tools for teachers

Web 2.0 Tools for Teachers is a manual created by Learning Consultant, Nik Peachey, to gear EFL and ESL teachers for creative, fun and interactive lessons using different web based tools. The document describes 11 free and simple to use web tools of

various features such as video communication, dictation, etc. to assist language teaching and learning through technologies. The collection of web tools includes:

- 1. Penzu: Personal journal creation tool
- 2. Voxopop: Audio tool to record speaking for others to listen and respond
- 3. Listen and Write: Dictation exercise creation tool
- 4. Dvolver Moviemaker: Animated cartoons creation tool
- 5. 280 Sldies: Web presentation tool similar to PowerPoint
- 6. Eyeplorer: Research and study tool
- 7. Wordle: Graphic presentation tool
- 8. Tokbox: Video communication platform
- 9. Fervo: Pronunciation dictionary of multiple languages
- 10. ESL: Create quizzes based on online videos
- 11. Wallwisher: Online message board

Web 2.0 Tools for Teachers includes clear and concise step by step graphic instructions for each of these tools to help teachers of different computer competency levels navigate with ease. Innovative sample teaching ideas using these web tools are also included in the manual so teachers can apply them in their classrooms right away. Support features such as hints, uploading photographs and voice clips are also provided.

Further information:

• Web 2.0 tools for teachers

Related links:

- Creating interactive guizzes in MyStudiyo
- <u>69 learning adventures in six galaxies</u>
- Smarthistory a multimedia web-book about art and art history
- Top 10 web 2.0 tools for young learners
- The future of online learning: Ten years on
- Best practices in the use of Web 2.0 technologies for learning

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