Highlight: Innovative Pedagogy in Higher Education

Twilight of the lecture
Eric Mazur, a Harvard physics professor, is trying to be the force that moves higher learning towards a new pedagogy. He envisions a campus with fewer lecture halls, fewer professors talking while the pupils passively listen, and more students actively teaching and learning from each other.

Flipped classroom and learning in Higher Education: UNIST case study
The author of this case study did a pilot test with his computer literacy for business students at Ulsan National Institute of Science and Technology (UNIST) in the spring of 2009. The pilot test was well accepted by students and served as a benchmark for top administrators and other faculty members to understand flipped learning, its benefits, and critical success factors. Based on this successful case, UNIST has redesigned more courses gradually for flipped learning.

Innovative Programmes & Projects

Digital teaching portfolios for the enhancement of teaching and learning at the Hong Kong Institute of Education
Hong Kong Institute of Education launched the initiative of implementing digital teaching portfolios in the year of 2011. The tool allows teaching staff to engage in documentation of good teaching practices, reflection upon one’s pedagogies, professional collaboration, course development, and constructive ongoing dialogues of effective and innovative teaching.

News & Events

Successful completion of the training of trainers on project-based learning & telecollaboration and 21st century learning design
As many as thirty district level teacher trainers and the Ministry of Education officials have increased understanding on the different aspects of Project-Based Learning (PBL), 21st Century Learning Design (CLD) and the role of ICT in education. They were trained during the four-day workshop which was co-organized by the UNESCO, Microsoft and the Government of Nepal from 11 to 14 March 2014 in Kathmandu.

Focus on Netexplo 2014: the emerging trends in the use of digital technology
The 7th edition of the Netexplo Forum was held at UNESCO headquarters in Paris on 26 and 28 March 2014. Through its network of 200 experts from universities around the world, Netexplo identifies every year the emerging trends and innovations in the use of digital technology, shaping the society of tomorrow, where digital technology is more and more integrated and individuals are more and more connected.

Open call for expressions of interest to conduct studies on the impact of Open Educational Resources on education and training in Asia and Sub-Saharan Africa
The Coordinators of the Research on Open Educational Resources for Development (ROER4D) programme will be calling for research proposals for funding, on the theme of Impact of OER in the developing regions of Asia and Sub-Saharan Africa.

Resources

From face-to-face teaching to online teaching: pedagogical transitions
This paper shares the experiences of two instructors as they moved from teaching in a face-to-face environment to blended teaching and then to online teaching. It describes the four year journey and shed light on the issues, perspectives and practices as the instructors reflected on the changes to their pedagogical practice and the resulting online student engagement.

eLearning in Commonwealth Asia 2013
The Commonwealth Education Media Centre for Asia created a snapshot of the ICT in Education situation in their member states. They discovered in their report that several countries were ahead of the eLearning curve.

Asia Pacific Ministerial Forum on ICT in Education 2013 Outcome Document
The summary document synthesizes AMFIE 2013’s discussions and presentations, providing both data points and recommendations for progression. The Forum held in Shenzhen, PR China in November 2013, brought together Ministry of Education delegates from 20 countries from the Asia-Pacific region, experts, practitioners, researchers, and organizers who discussed and examined scalable and sustainable ICT-enabled educational models and innovations in the region and other parts of the world.

ICT in Education in Asia - A regional report on ICT integration and e-readiness in schools across Asia
A new report from the UNESCO Institute for Statistics (UIS) analyses ICT integration and e-readiness in education for 28 countries in the region, including countries in Central Asia, South and West Asia, and East Asia.

A 2010 UNESCO publication, “ICT for Higher Education – Case Studies from Asia and the Pacific”, pointed out that “the prevalence of ICT and the impact it has made in all aspects of our lives are compelling reasons for Higher Education Institutions (HEI) to try to capitalize on 21st century tools and technologies to address 21st century issues and challenges. Over time, the number of universities embracing new technologies to conduct the business of education is expected to soar”. Indeed, thanks to the relatively greater autonomy that HEI has, ICT has been increasingly used to enhance innovative teaching and learning practices in tertiary education. Still, it is undeniable that most of today’s university classrooms are using ICT to merely replace lecture notes (e.g. electronic slides), only reinforcing a traditional mode of instruction where teachers are talking and students are listening. This month’ ICT in Education newsletter is
featuring promising cases and projects where ICT successfully enhances innovative pedagogy to promote higher learning in Higher Education setting. For example, the first highlight of this issue “Twilight of the Lecture” tells a story of Eric Mazur, a Harvard physics professor, how he has transformed himself from a traditional yet well-received “speaker-cum-lecturer” to facilitator for active learning. The article introduces a variety of new pedagogical approaches that remove the teacher from the central focus and encourages a shift from “teaching” to “helping students learn” in a university setting, including “peer instruction”, “using student response systems” and more. The cases of Hong Kong Institute of Education (Digital teaching portfolios) and Ulsan National Institute of Science and Technology (Flipped classroom) are hoped to be as inspiring and interesting to those interested readers as they were to us.

For the wider range of our readers, we also have included UNESCO Bangkok’s recent workshop on PBL and 21 century Learning Design (in collaboration with UNESCO Kathmandu), a recent publication on ICT in Education in Asia by UNESCO Institute of Statistics, research findings on pedagogical transitions from face-to-face teaching to online learning for higher education by Petrea Redmond, and a study on the implementation of eLearning in the Commonwealth countries by the Commonwealth Education Media Centre for Asia.

Please let us know in case you have any comments or suggestions for us.

We hope that you enjoy reading our newsletter!

Highlight: Innovative Pedagogy in Higher Education

Twilight of the lecture
A summary of the article by Craig Lambert, published by Harvard Magazine, March-April 2012 (114:4; 23-27)

For the last 600 years, lectures have been the driving force in the university classroom, and, as the higher learning system expanded in size and importance, the inertia behind the lecture based system increased. Eric Mazur, a Harvard physics professor, is trying to be the force that moves higher learning towards a new pedagogy. He envisions a campus with fewer lecture halls, fewer professors talking while the pupils passively listen, and more students actively teaching and learning from each other. This new style, called “peer instruction”, removes the teacher as the central focus. Instead, professors pose a question, which is followed by group discussion and individual responses.

Mazur has not always taught this way. In his early days at Harvard, his courses were perfect examples of the classic orator centred method. Moreover, he was a compelling speaker and
students turned in great evaluations. This all changed after reading a study by fellow physics professor, David Hestenes. In an experiment conducted on university physics students, Hestenes discovered that the learners had the same misconceptions about the subject before and after a semester-long, lecture-based course. Furthermore, these students performed well on text-book style problems that involved memorized formulas, but did poorly on word problems that required a deeper understanding of the formulas. Mazur, who prided himself on his lecturing ability, worried that his students might have the same problems. His concerns played out one day when he was lecturing for 10 minutes on one concept. He believed the concept was simple, yet the majority of students did not understand. Finally, he asked his pupils to discuss it among themselves. After three minutes of confusion, chatter, and chaos, most people in the room could understand the concept and the class continued to the next topic. Since then, he has been organizing his classroom around the idea that students connect with other students better than with a lecturer. In other words, students are the best teachers.

Beyond blurring the line between students and teacher, there are many other ways to counter the lecture-based classroom. Some educators are requiring students to watch lectures before class, so that class time can be spent on active learning. Mazur asks his students to read his lecture notes and send him questions about areas they found difficult. Class starts with discussion of common questions. Using electronic voting devices, he receives instantaneous feedback on the students’ understanding, which allows him to focus on a topic for as long or short as needed. These changes have brought measurable results with them. Students have better retention of concepts after the course finishes while being better prepared to apply their knowledge in unfamiliar situations. Peer instruction can even eliminate the gender gap in physics. Females entered Harvard with a poorer understanding of the subject, but they made greater gains and closed the gap during the semester. This did not happen in Mazur’s lecture-based classroom.

Changing the course of the education system is not an easy task. The first problem is structural – lecture halls are designed to focus an audience’s attention on a single person. The most basic education environments, elementary classrooms, provide the best model for an active learning environment. Small groups of students face each other while the teacher can wander through her audience and help as needed. A second problem is the students themselves. Many reject Mazur’s style of teaching. They are expecting a teacher who explains the textbook point-by-point in the classic lecture format. Teachers, for their part, are incentivized to follow the active teacher/passives student format, since great lecturers are rewarded by students with positive evaluations. But, as Mazur points out, even the best lecturers are not very good at passing on a deep understanding of difficult concepts.

Despite its problems, the active teacher/passive student model is propelled by the weight of centuries and it will not be an easy task to create a new model. Lectures are not inevitable, however. Mazur, loaded with his data, will continue promoting the benefits of peer instruction through 100 appearances a year before a wide range of audiences and in his own classroom.
Ulsan National Institute of Science and Technology (UNIST) was founded by the Korean government to educate students in engineering and business administration in the suburb of Ulsan city dubbed ‘industrial capital of Korea’ and accepted its first batch of students in 2009. As a research-oriented university, it offers bachelors, masters, and doctorate programs in the hope of attracting top notch students from Korea and abroad. Two features that differentiate it from its competitors in Korea are (1) all courses are taught in English and (2) flipped classroom/learning has been implemented through course redesign.

The 2014 Horizon report specifies that ‘Flipped Classroom’ and ‘Learning Analytics’ are two important developments in educational technology for higher education to be implemented in
one year or less. According to a recent survey by the Center for Digital Education, 50% of American faculty members are already using the flipped learning method or plan to by winter 2014. It is said that “improved mastery of information” is the top student benefit. From its inception, UNIST has paid attention to the flipped learning model as a possible solution (1) to offer all courses in English, (2) to provide two-way interactive learning for critical thinking and problem solving, and (3) to reduce or at least contain educational costs without sacrificing quality.

The author did a pilot test with his computer literacy course for business students in the spring of 2009. The course is designed for a student to learn MS Office software for personal and organizational productivity improvement. The course consists of seven topic areas: Windows, Cloud Computing, Word, PowerPoint, OneNote, Excel, and Access. A student is expected not only to learn certain commands, functions, and skills but also to build up his/her capabilities to deal with real world applications by practicing what they learn.

There are two major reasons why a flipped learning model coupled with a blended learning model is adopted for this required computer-literacy class. First, incoming students have a wide variation in their knowledge on the MS Office suite. Some of them are already familiar with certain applications in it to a certain level, while others are just beginners. In a traditional class, a one-sided lecture by an instructor is given based on an average student, thus making both fast-learning students and slow-learning students frustrated. A flipped learning model makes it possible to switch from lecture-based passive learning to student-centric active learning. Second, valuable class time should be devoted to solve real world problems through student-centred active learning rather than to acquire knowledge through instructor-led passive learning.

Learning activities are divided into two: pre-class activities and in-class activities. The pre-class activities involve three components: self-learning, online interactive training, and pre-class exercise. The in-class activities are comprised of a quiz, a summary lecture, and an in-class exercise. There are two class meetings per week: an optional one for pre-class activities and another mandatory meeting for in-class activities in lieu of two mandatory meetings in a typical lecture-oriented class.

A student can do all of the pre-class activities at his/her convenient time and at his/her own pace since all course materials are available through the course website. If necessary, a student may come to an optional class meeting where a teaching assistant only is present for on-demand help. On average, half of the enrolled students show up though class attendance is not checked. All of pre-class activities are recorded in the school’s learning management system so that the instructor can monitor closely each student’s progress and make an early intervention in an irregular situation where a student doesn’t do his/her part as scheduled or fails to pass the threshold.
Since a majority of students are freshmen who are not used to this new learning model, they need an adjustment period at the beginning of the semester. They have to make two major adjustments for flipped learning from their traditional learning habits. First, they have to understand the changed roles of a student from a passive learner to an active one by taking the driving seat in the learning process. The instructor needs to change from the attitude of a lecturer to that of a coach to monitor and guide their students learning progress and performance. Second, students have to develop their time management skills to meet deadlines for each of pre-class activities. Though pre-class activities allow a student to study at his/her convenient time and at his/her pace, some students are not skilled at time management. It is crucial, particularly at the first few weeks, for an instructor to monitor, detect troublesome students and make an early intervention to motivate them to keep up with the class schedule.

Overall, students prefer a flipped learning model to the traditional one according to the after-semester student survey. This new way of learning is beneficial to all three stakeholders in an educational institute: quality education for students, productivity improvement for faculty, and cost containment for administrators.

The pilot test was well accepted by students and served as a benchmark for top administrators and other faculty members to understand flipped learning, its benefits, and critical success factors. Based on this successful case, UNIST has redesigned more courses gradually for flipped learning. Thirty two courses (8%) out of around 400 courses had been redesigned by Fall, 2013. UNIST has set an ambitious goal of 30% of courses to switch to flipped learning in the next three years.

**Students’ responses**

- “The simulation program allowed me to practice until I mastered a particular skill.”
- “I felt like I was really involved in the process of learning while interacting with the professor, the assistant instructor, and classmates in class.”
- “I developed a new habit of previewing learning materials before class throughout this course.
- “With this course, I found the time spent in class is effective and efficient compared to other lecture-driven courses.
- “I used to be passive and sit quiet in class so found it difficult to catch up to this type of classes consisting of student-driven learning activities.

*The author, Jin-Hyouk IM, is a Professor of Management and Director of the Centre for Teaching and Learning at Ulsan National Institute of Science and Technology (UNIST). You can contact him through imj@unist.ac.kr.*

**Further information:**

- [Ulsan National Institute of Science and Technology (UNIST)]]
News & Events

Successful completion of the training of trainers on project-based learning & telecollaboration and 21st century learning design
As many as thirty district level teacher trainers and the Ministry of Education officials have increased understanding on the different aspects of Project-Based Learning (PBL), 21st Century Learning Design (CLD) and the role of Information and Technology (ICT) in education. They were trained during the four-day workshop that was co-organized by the UNESCO Office in Kathmandu, the Microsoft and the Government of Nepal and with the support from the UNESCO Office in Bangkok from 11 to 14 March 2014 in Kathmandu.

The training aimed at creating an enabling environment that facilitated the effective and holistic integration of ICT in education, with a specific focus on promoting direct and effective use of ICT for meaningful and productive learning and teaching activities. The workshop also expected to ensure effective pedagogical practices in the Nepalese classroom through appropriate use of ICTs.

Speaking at the opening session, Amita Vohra, Officer-in-Charge of the UNESCO office in Kathmandu said that the use and integration of ICT in building inclusive knowledge societies for all and for overall socio-economic development is increasingly on the agenda of almost all developing countries. “…conscious of the significant role of ICT in our life, especially in the educational activities, education authorities should now be encouraged to implement the
strategies to empower ICT in supporting the teaching and learning process in the classroom,” she added.

In his opening remarks, Dilli Ram Rimal, Executive Director of the National Centre for Educational Development (NCED) appreciated the support of the UNESCO office in Kathmandu for organizing the training. “This training will facilitate other trainings that the NCED will organize for teachers in the future”, he added.

The training was facilitated by Jonghwi Park and Mel Tan from the ICT in Education unit in the UNESCO Office in Bangkok. They shared different practices undertaken by different countries on integrating ICT in education in the Asia-Pacific region.

Thomas Creighton from Imagine Education provided the training on the 21st Century Learning Design. He discussed on how to offer today’s children and students the skills they need when they are adults.

The workshop was conducted in a very participatory manner where the participants were divided into several groups and asked to develop real PBL cases. A wiki space was built by the trainers during the workshop to collect the group works, to distribute further learning material and to function as a forum for communication.

In the closing session Lava Deo Awasthi, Director General of the Department of Education said that though all the schools of Nepal did not have adequate facilities for the use of ICT, a lot can be done with the limited resources. “Commitment and confidence is what we need,” he said.

Further information:

- UNESCO Office in Kathmandu

Related links:

- Policies on ICT in Education in Nepal
- ICT-Supported Project-based Learning: the Myths and Truths
- Successful series of project based learning (PBL) and telecollaboration workshops continued in Bangladesh

Previous issues of the e-newsletter:

- UNESCO "ICT in Education" Announcement e-newsletter

What do you think about this topic?
Focus on Netexplo 2014: the emerging trends in the use of digital technology

The 7th edition of the Netexplo Forum was held in partnership with UNESCO at its headquarters in Paris on 26 and 28 March 2014. Over the two days, the event has gathered more than 1,600 business, media and political decision-makers. This year’s edition was characterized by the virtual participation of young people expressing their views on the Netexplo innovations awards (Digital Young Leaders), and a third day completely online hosted on DailyMotion with a series of roundtables on the themes of the forum. The Forum also attracted more than 12,000 online visitors from 60 countries worldwide for more than 27,000 connections, the best performance since its beginning in 2008. Through its network of 200 experts from universities around the world, Netexplo identifies every year the emerging trends and innovations in the use of digital technology, shaping the society of tomorrow, where digital technology is more and more integrated and individuals are more and more connected. This year’s Forum awards were selected among a large pool of 1,034 projects, of which around 70% were developed by start-ups. Three main trends were decrypted at Netexplo: modeling space; modeling the body; and modeling behaviour.

Netexplo’s award Click & Walk, a service proposed by a French firm, uses a new “crowd-walking” scheme for visualizing and analyzing data captured by a network of 90,000 users for quick micro-surveys for brands and distribution chains, revealing sources and data until now largely unexplored. Conversely, the awarded project Shodan puts in place an innovative search engine identifying 1,5 billion connected objects worldwide.

Many new services are used to model and break the barriers of space in ways which were impossible until now: for example Netexplo’s award winner Digital Lollipop, developed by the National University of Singapore allows the transmission of taste on the tongue by means of electrical impulses.

The body is more and more seen by technology as a data-source, and has become the object of surveillance and monitoring through different kinds of devices. Several services operate this “quantification” of the body: among those, the Netexplo award SimSensei proposes a tool for psychological distress diagnosis through a simple video interview operated by a digital avatar. The tool analyzes objective measurements of the user’s verbal and nonverbal behavior and can allow the clinician or healthcare provider to make a more informed diagnosis.

With the advent of 3D printing, the Forum explored the transition from biometrics to bionics with technology that prints human skin (SkinPrint), reducing the risk of rejection by the body.
At the same time, Mobile 3D scanner proposed by the Swiss Federal Institute of Technology in Zurich, Switzerland, is an application that transforms a smartphone into a 3D scanner, reconstructing a 3D representation based on a very large number of photos taken from different viewpoints by the phone’s in-built camera.

The increased capacity of major internet platforms to track users' data is certainly giving rise to questions linked to privacy and the data exploitation by business. Are we heading towards transparency by surveillance, asks Professor Levy in his trend analysis.

Developed by a team of German students, Soma Analytics identifies stress-related behaviour among people at work by measuring the warning signs of a burnout: voice pitch, quality of sleep, and typos on computer keyboards.

On the same line, a number of innovations spotted by the Netexplo international networks seem to prefigure an increased monitoring of behavior at work, in a quest for increased productivity and “useful” interaction among employees.

However, among this year's awards is Jelly, an application created by one of the co-founders of Twitter (a Netexplo award winner in 2008) proposing a way of helping each other in a connected society: the application offers a new way to search, based on images and the sharing of knowledge on social networks. Jelly is a cousin of classic search engines: the user asks a question, and the search engine provides one or more answers.

The Forum has also addressed several other topics such as the dissemination of knowledge in Africa through digital technologies; or the experience of Start-up Chile as a way to promote the digital economy in Latin America.

Further information:

- Focus on Netexplo 2014: the emerging trends in the use of digital technology

Related links:

- New Horizon Report 2014 identifies emerging technologies likely to have an impact on learning
- Innovative Teaching and Learning (ITL) research: A global look at pedagogies for 21st century skills
- The WISE Awards honor world’s best initiatives in innovative education

Previous issues of the e-newsletter:

- UNESCO "ICT in Education" Announcement e-newsletter
What do you think about this topic?

- Visit our on-line forum and share your views

Open call for expressions of interest to conduct studies on the impact of Open Educational Resources on education and training in Asia and Sub-Saharan Africa

The Coordinators of the Research on Open Educational Resources for Development (ROER4D) programme will be calling for research proposals for funding, on the theme of Impact of OER in the developing regions of Asia and Sub-Saharan Africa.

This is a Pre-Announcement to invite you to submit your expression of interest. Your expression of interest will serve to assist us in gauging the range of research interests within the thematic of OER Impact Studies in Asia and Sub-Saharan Africa, as well as the budget level needed for carrying out OER impact research.

This Pre-Announcement is also to maximize the lead time for you to prepare your full impact study proposal for submission when the actual Call for Grant Applications is launched.

Guidelines for Submitting Your Expression of Interest

(i) Abstract
Submit an Abstract of up to 300 words, indicating your key research question and main research method. Indicate a lump sum budget that you would need to conduct your research. The organizers are tentatively setting the upper limit of the budget for each grant application at fifty thousand Canadian dollars. If you feel that your research warrants a higher budget amount, please justify it in your expression of interest. You may change the ideas stated in your Abstract, when making your application in the final Call for Grant Applications. As such, your expression of interest is not binding.

(ii) Scope of Education Sectors
Formal education, informal and non-formal learning at all levels – primary, secondary, tertiary, life-long learning.

(iii) Who May Apply and Territories for Study
Researchers world-wide are invited to study impacts of OER usage in the territories of Asia and/or Sub-Saharan Africa that are eligible for official development assistance. Researchers must demonstrate ability to access the research sites.

(iv) Multidisciplinary Collaboration
North-South partnerships and inter-institutional partnerships within territories are encouraged so that the research may be strengthened by multi-disciplinary skill-sets through collaboration.
(v) **Study Duration**
Up to 18 months

(vi) **Language of Submission**
English

Please e-mail your expression of interest, with your name, institutional affiliation and contact information to: [Pre-Announcement@oer-impact.net](mailto:Pre-Announcement@oer-impact.net)

The ROER4D programme which is supported by the [International Development Research Centre](https://www.idrc.ca/) (IDRC) of Canada and the U.K. [Department for International Development](https://www.dfid.gov.uk/) is managed by two universities. The [University of CapeTown](https://www.uct.ac.za/) administers the component on OER research and the [Wawasan Open University](https://www.wuu.edu.my/), Malaysia administers the component on OER impact studies.

**Innovative Programmes & Projects**

**Digital teaching portfolios for the enhancement of teaching and learning at the Hong Kong Institute of Education**

*By Cher Ping Lim, Professor, Hong Kong Institute of Education*

The initiative of implementing digital teaching portfolios at the Hong Kong Institute of Education began in the year of 2011. At an individual level, digital teaching portfolio offers a context for articulating one’s teaching philosophy, reflecting upon one’s teaching, documenting evidence of teaching accomplishments for present and future employers, and through which, one’s pride and esteem for teaching, as well as teaching practices could be enhanced (De Rijdt et al., 2006; Wright et al., 1999). At a community level, teaching portfolio encourages inquiry-based dialogues on teaching, facilitates the process of mentoring junior teaching staff and offers resources which helps develop effective criteria for teaching in a tertiary institution (Quinlan, 2002; Wright et al., 1999). The Institute is a higher education institution in Hong Kong offering teacher education as well as multidisciplinary programmes. It has a strong commitment to quality enhancement of student learning and professional development of teaching staff. By using digital teaching portfolio as a professional development tool, the initiative aims to build a professional learning community for the enhancement of teaching and learning at the Institute. The tool allows teaching staff to engage in documentation of good teaching practices, reflection upon one’s pedagogies, professional collaboration, course development, and constructive ongoing dialogues of effective and innovative teaching. With support from the Institute, individual staff can build their digital teaching portfolios on the online platform, Mahara ([https://mahara.org/](https://mahara.org/)), which allows portfolios to be shared easily among teaching staff and other stakeholders.
In the process of implementation, a guidebook with step-by-step instructions on building digital teaching portfolios on Mahara was firstly developed. On the other hand, based on the literature on teaching portfolios, a template with suggested contents and structure was produced. The implementation team proposed different types of portfolios to be constructed: 1) individual-based, 2) interest-based and 3) programme/course-based; which were later modified into two types: individual and group (e.g., course, departmental) portfolios in the actual implementation. Workshops were offered to the team supervisors and members to kick start the process of developing their own portfolios. A survey was administered to staff members to examine their perceptions and concern of using digital teaching portfolios. From the feedback received, it is suggested that more technical and conceptual supports were needed to cater for individual needs. Individual consultation sessions were provided, during which each staff member has the chance to brainstorm with the supporting team, to decide on the purpose, contents, and organization of the portfolio. At the departmental level, staff development workshops were conducted to introduce the potentials and benefits of using digital teaching portfolios with reference to the unique situation of each department. Telephone and email enquiries were also provided for technical support.

As the implementation continued, staff members who had built their portfolios were invited to share their experiences at the institute-level seminars. Figures 1 and 2 are screen captures of two digital teaching portfolios constructed by individual staff members. With the variety of purposes of building digital teaching portfolios, seminars and sharing sessions were organized for staff members to exchange ideas and address any concerns. Online resources for developing digital teaching portfolios were also provided. Several departmental and course portfolios were also set up to facilitate ongoing inquiries into teaching and learning within the department and among course tutors. Figure 3 is a screen capture of a departmental portfolio. The digital teaching portfolio initiative has been shared in conferences locally and internationally.
Figure 1. An example of a digital teaching portfolio of a staff member
Figure 2. Another example of a digital teaching portfolio
Figure 3. An example of a departmental portfolio

To evaluate the implementation, interviews were conducted with teaching staff to examine their experiences in developing digital teaching portfolios. Generally speaking, they found that digital teaching portfolios were beneficial to them both personally and socially, as indicated in the following excerpts:

“This is an effective way to disseminate what I have done in teaching and learning... I can be related to my students and my colleagues, if they are interested, they can have a look at it. It also helps me to accumulate to build up my profile.”

“When I want to look for something, I go to my teaching portfolio and I can find everything there. I can also revisit the things I did in the past, and plan for making improvements in the future, that’s for my own benefit. And for community building, if I make the contents rich in the portfolio, other people will benefit more, because they can see a lot of things and learn... If everybody builds such a portfolio, I can learn from them as well.”

“In one course I taught with another colleague, we try to use Mahara as the communication platform to share our teaching materials. We also write down our reflections, personal reflections,
teaching reflections on the platform, so that we can know about each other’s teaching and learning, and how we feel about teaching and learning.”

The descriptive account above highlights the role of teaching e-portfolios in the quality enhancement of higher education teaching and learning, and its impact on culture, beliefs, policies and practices in the context of implementation to build a professional learning community. It also highlights the importance of a set of mechanisms to support the implementation of digital teaching portfolios that includes: (a) staff professional learning and mentorship, (b) staff buy-in by meeting their needs of showcasing their teaching and learning practices and outcomes in their staff appraisal, and reflecting upon and enhancing their teaching and learning practices and outcomes, and (c) technical, peer and leadership support.

Reference

The author, Professor Cher Ping Lim, is Director of the Centre for Learning, Teaching and Technology at the Hong Kong Institute of Education. He is also Honorary Professor of Education at Edith Cowan University, Australia. You can contact him through clim@ied.edu.hk.

Further information:
- Hong Kong Institute of Education

Related links:
- Innovative Teaching and Learning (ITL) research: A global look at pedagogies for 21st century skills
- Measures of Effective Teaching (MET) Project
- Evaluation meeting on the Facilitating Effective ICT-Pedagogy Integration Project
- Technological Pedagogical Content Knowledge (TPACK) explained

Previous issues of the e-newsletter:
Resources

From face-to-face teaching to online teaching: pedagogical transitions

This paper published by Petrea Redmond, shares the experiences of two instructors as they moved from teaching in a face-to-face environment to blended teaching and then to online teaching. It was presented at the 28th Annual Conference of the Australasian Society for Computers in Learning in Tertiary Education: Changing Demands, Changing Directions, held 4-7 Dec 2011, in Hobart, Australia.

The paper describes the four-year journey and shed light on the issues, perspectives and practices as the instructors reflected on the changes to their pedagogical practice and the resulting online student engagement.

Data included three 1-hour interviews and an analysis of online discussion postings. The instructors reflected on their values, beliefs and assumptions about teaching and learning. As higher education has embraced online education as a way to reduce costs, increase flexibility, and enhance access to students it is important to gain an understanding of the perceptions of instructors moving into online teaching.

This study found a change in the beliefs and teaching presence of the instructors from their initial resistance to online teaching to an approach which is mindful of the student experience and promotes a dialogical approach to online learning.

Read the full paper:

- From face-to-face teaching to online teaching: pedagogical transitions

Related links:

- Innovative Teaching and Learning (ITL) research: A global look at pedagogies for 21st century skills
- Measures of Effective Teaching (MET) Project
Evaluation meeting on the Facilitating Effective ICT-Pedagogy Integration Project
Technological Pedagogical Content Knowledge (TPACK) explained

Previous issues of the e-newsletter:

UNESCO "ICT in Education" Announcement e-newsletter

What do you think about this topic?

Visit our on-line forum and share your views

eLearning in Commonwealth Asia 2013

The Commonwealth Education Media Centre for Asia created a snapshot of the ICT in Education situation in tertiary education in their member states. They discovered that several countries were ahead of the eLearning curve.

For instance, the Indira Gandhi National Open University was offering an online path for students to earn a Bachelors of Information Technology and an Advanced Diploma in Information Technology as early as 1999.

In Malaysia, eleven public universities came together to create an eLearning program in 1998. Since then, all the major universities of the country have opened eLearning centers.

The Maldives National University is conducting training course in eLearning. The graduates are then expected to take their new skills and create more eLearning programs.

And in Sri Lanka, the University of Colombo is attempting to overcome language barriers through a powerful translation tool, which will allow students to access MIT’s open courseware in their native language.

Overall, the report says, there is great enthusiasm for ICT in education and for online learning in the region.

Read the full report:

eLearning in Commonwealth Asia 2013

Related links:
Asia Pacific Ministerial Forum on ICT in Education 2013 Outcome Document

AMFIE 2013 represented the fourth in an annual series of conferences designed to facilitate policy-level knowledge exchange and dialogue.

Participating high-level officials were invited to present specific needs and challenges that their countries face, opening up inter-directional dialogues to initiate or strengthen partnerships between emerging and high-performing countries.

AMFIE 2013 focused on methods to scale innovative ICT-in-Education programs and better integrate technology throughout the education sector. Forum participants were able to describe the distinctive elements of challenges in their own context, opening up avenues for comment and fostering greater understanding.

The summary document synthesizes AMFIE 2013’s discussions and presentations, providing both data points and recommendations for progression.

Read the Outcome Document:

• Asia Pacific Ministerial Forum on ICT in Education 2013

Related links:

• Outcome Document: Asia Pacific Ministerial Forum on ICT in Education (AMFIE) 2012
• Perspectives from a Participant: AMFIE 2012
• Policy makers share their experiences on ICT in Education during Ministerial Forum in Bangkok
• AMFIE 2012 - Summary of the Forum
• High-level policy forum on ICT and Education for All: Achievements and the way forward
• Statisticians gather in Seoul to discuss ICT4E indicators
• How can we use ICT to promote Lifelong Learning?: Central Asia Symposium on ICT in Education
• UNESCO Mobile Learning Week produces tangible results
• Learning from national ICT/education agencies

Previous issues of the e-newsletter:

• UNESCO "ICT in Education" Announcement e-newsletter

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ICT in Education in Asia - A regional report on ICT integration and e-readiness in schools across Asia

Within Asia there are wide variations in the level of investment in information and communication technology (ICT) in education. In countries like the Republic of Korea and Singapore, OECD member countries in Asia, governments have made commitments that outstrip those of some of their European counterparts. But, for many other countries in the region, the school-aged population has little or no access to ICT in the classroom.

A new report from the UNESCO Institute for Statistics (UIS) analyses ICT integration and e-readiness in education for 28 countries in the region, including countries in Central Asia, South and West Asia, and East Asia.

E-readiness (electronic readiness) is a measure of the degree to which a country is prepared to partake in electronic activities and benefit from ICT in education.

The report explores four specific types of data:

• ICT in policy and key curricular areas;
• ICT infrastructure and its importance to integrating ICT-assisted instruction;
• Participation in programmes offering ICT; and
• Teaching and learning as they relate to ICT in education.
The data, covering 2011 and 2012, provide a snapshot of ICT access, as well as basic usage of ICT for education, across the region.

The report and data add to a growing body of research on ICT in education. UIS surveys conducted in Latin America and the Caribbean and in five Arab States reveal the extent to which factors, such as education policy, teacher training and infrastructure, drive or hamper the integration of ICT in schools and the classroom.

Read the report:

- [ICT in Education in Asia - A regional report on ICT integration and e-readiness in schools across Asia](#)

Related links:

- [New research on girls’ transition to STEM in higher education](#)
- [New Horizon Report 2014 identifies emerging technologies likely to have an impact on learning](#)

Previous issues of the e-newsletter:

- [UNESCO "ICT in Education" Announcement e-newsletter](#)

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