Introduction to Panel 2: 

ICTs and Learning

Background

The rapid advancement of Information and Communication Technologies (ICTs) impacts the way people learn. Indeed, the World Wide Web has made it possible for learners to learn well beyond formal school settings. ICTs have thus expanded opportunities for access to quality education for all, not only for reaching the unreached but for enhancing lifelong and life wide learning.

However, a true paradigm shift in learning did not occur until further advancements were made, including the development of Web 2.0\(^1\) applications and cloud computing\(^2\), allowing anyone with access to ICTs to be a knowledge creator. It has now become a well-accepted norm for those interested in any given topic to search for user-created knowledge, make instant comments and/or enrich the existing knowledge base, and thereby collectively participate in building a knowledge community. In this context, ICTs have been transforming the role of learners from passive recipients of information in the century-old traditional school model to change agents, capable of generating and shaping their own knowledge construction.

These developments are challenging the limitations of conventional learning and the space and time within which learning occurs. While traditionally largely confined to educational buildings, technology has now, proverbially speaking, broken down the walls of schools and universities, opening up uncountable possibilities regarding where and how learning can take place. Learners are now presented with a plethora of choice as to what they can learn, where they can learn, when and how they would like to learn and with whom.

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1 The term Web 2.0 is used to refer to the “new era of Web-enabled applications that are built around user-generated or user-manipulated content, such as wikis, blogs, podcasts, and social networking sites” (PEW Internet, 2009a). Web 2.0 includes online photography sites (such as Flick), Wikipedia (the ‘free encyclopedia’), online video library (such as YouTube), web logs (such as Blogger, Live Journal and Technorati) and social networking sites (including Friendster, LinkedIn, Tribe.net and Orkut as well as Bebo, MySpace, and Facebook). In contrast to Web 1.0, a retronym for the internet and internet content exchanged via one-way communications, Web 2.0 focuses on connections and communications between people.

2 Cloud computing refers to both hardware and software used as part of a service over a common network (or “cloud”) such as the internet.
At the same time, the transformative potential of ICTs has yet to be fully realised in our education systems, despite the tremendous potential for ICT-enhanced student-centred teaching and learning to create a new culture of learning in not just formal, but also non-formal and informal education settings.

To facilitate the greater advancement of ICTs in education systems, the following key questions need to be asked:

• What kind of new skills and competencies are required to live and perform in today’s digital world?
• How can educators become better prepared to promote and facilitate such skills and competencies?
• Have the instantaneity, fluidity and multi-tasking of new learning really affected the way the mind works, especially in young learners or “digital natives” born into a world of ICTs? If yes, how?
• Are we ready to scale up the findings from learning science research on learners’ motivation, metacognition, self-regulation and emotion towards building a technology-enhanced knowledge society? If yes, how can this be achieved?
• How can we harness the new potential of ICTs to create a new culture of learning – beyond the decade-old role of ICTs to enhance the equal access to education and learning?

Proposed topics for discussion

• What are recent developments in research and evaluation into the role and implications of ICTs for learners and learning?
• How have ICTs changed learning, both in terms of learning outcomes for development of 21st century skills and competencies and learning processes (e.g. ICTs as cognitive tools, ICTs to support self-regulated learning and metacognition, etc.)?
• To really harness the great potential of ICTS in education transformation, what are the policy implications for education systems (i.e. not merely improving access to learning, but promoting the paradigm shift for learning)?

References


