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Paper No. 5
2nd Regional Symposium on "New Media & Learning Technologies in Asia"

Opening Speech by:

Peter Chen
Senior Minister of State for Education
Singapore
Good morning, Ladies and Gentlemen.

It is my pleasure to join you at the opening of the Second Regional Symposium on 'New Media and Learning Technologies in Asia'. May I extend a warm welcome to our overseas participants. I hope that you will have a pleasant stay here in Singapore.

This symposium is timely given the rapid advances in information and communication technologies, or ICT, for short. Rapid advances in technologies means that we must re-examine the ways in which we view almost every aspect of human communication and consider their impact on learning, both for students in schools and adults in the workforce.

The ICT revolution has opened up new possibilities, just like the revolution brought about by Gutenberg's invention of
the printing press in the 15th century; or the industrial revolution of the 18th century. The printing press made it possible to disseminate information to the masses in an inexpensive and convenient way while the industrial revolution enabled the mass production of goods. In both instances, there were significant impacts on the way people live, learn and work. The ICT revolution will bring about similar, if not, even more dramatic, changes. The ICT revolution is not just about mass dissemination of information and automation of work processes - it is about the empowerment of the individual to manipulate, communicate, and construct new knowledge, as well as, to generate innovative ideas, services and products.

In the last three decades, we have witnessed tremendous advances in information and communication technologies that affect our lives. According to Moore's law, which is a well-accepted rule of thumb in the computer industry, computing power is doubled approximately every 18 months. To give a sense of the increase in the computing power, we can compare the world's first commercial microprocessor, made in 1971 with today's Pentium chip. The 1971 microprocessor has a mere 2,300 transistors on it, compared to about 10 million transistors in the Pentium chip.
At the same time, the types and capacities of digital storage devices have increased significantly. These devices open up new possibilities in information access and retrieval. To set these increases into context, it is interesting to note that in the 1980s, the early PC came with a 5¼-inch floppy disk drive that could store only 160 kilobytes of data. Today, it is not uncommon for the home PC to have a 16 gigabytes hard disk - a hundred thousand fold increase in capacity. This tremendous increase in storage capacity transforms the capabilities of the PC from simple computing devices to powerful personal multimedia communication and entertainment tools.

Another major advance is the Internet. In the last few years, the Internet has literally taken the world by storm. It has provided the individual with unprecedented access to multimedia information on a global scale. It has also allowed a community of people to exchange ideas and to collaborate with one another easily without the constraints of time and distance. Here, the Singapore ONE broadband network has made possible the rapid transfer of multimedia data to adequately support applications such as video-on-demand and video conferencing.
The recent changes in telecommunication technology have further extended the ability of the individual to communicate with one another. The use of satellite and mobile devices has definitely expanded the means of communication beyond the need for a physical wiring.

The combination of Internet technology, telecommunications technology and powerful computers has brought about an expansion of communication possibilities. They have certainly altered the type and manner in which information is accessed and retrieved. They have also, very importantly, expanded human communication in ways that we have not yet fully exploited.

People are no longer desk bound to receive multimedia information through wired networks in physical offices but increasingly, individuals are able to communicate with one another through various mobile hand-held devices using satellite and wireless technology. With information and communication technologies, the physical boundaries of the world have collapsed. With information so easily stored, retrieved and sent, we have moved very quickly into the Age of Information Explosion.
How do we handle this information explosion in our educational institutions? Clearly, students must learn how to handle information appropriately. They must learn to differentiate between information that is relevant and those which are not. They must discern authentic sources of information from unreliable ones. Similarly the institutions and teachers must learn how to harness the power of this information explosion and to exploit the potential offered by the new technology and applications.

Both students and teachers will need to be familiar with the rapid advances in technology. If they are not, they will have difficulty just to cope with what they do. Worse still, they will not be able to take advantage of the full potential of the new technology. This is not a matter of choice or being fashionable. The exploitation of Information and Communications Technology is so important that if you are not with it, you will simply be left behind. In this regard, I am pleased to note the good progress made by schools and educational institutions in Singapore in the use of ICT.

In order to reap the full benefits of using learning technologies, it is essential for people to change their mindsets. It is sometimes necessary for institutions to revamp their entire thinking and go back to basics to see
what they are trying to achieve. It is often not enough just to
tinker with what they do by making minor improvements.
They may sometimes have to "re-engineer" the whole
process. They have to be as flexible as that. Individuals too
can no longer be passive receivers of knowledge. They must
be actively engaged in the process of the creation of
knowledge and to be able to gainfully apply this knowledge.

I am pleased to see three major organisations, namely,
the Asian Media Information and Communication Centre, the
School of Communication Studies, NTU and the National
Institute of Education, involved in this symposium. This
symposium brings together practitioners from the different
professions - teachers, university and polytechnic lecturers,
engineers, media and communication professionals, and
knowledge workers. The participants of the symposium will
learn from the multiple perspectives and views offered by
speakers from the different disciplines. The symposium has
a well balanced spread of topics that will provide a good
understanding of issues in the use of new media for learning.

This symposium is comprehensive in coverage and
attempts to address the various infrastructure and
technological advances that support the widespread use of
technology in society and in the world of business. Satellite
communication, digital radio and TV, video conferencing, mobile telephony are some new media technologies that will become more pervasive in the near future. It is important that we are familiar with their current developments and trends and their impact on education.

The advances in technology and the changing demands of the emerging global economy have forced academic institutions to re-invent themselves in the next millennium in order to remain relevant. Many of these institutions are exploring the use of these technologies to promote effective learning, and to plug themselves into an increasingly connected community of learners.

The symposium will also discuss topics such as the use of technologies for effective learning, the building of learner-centred environments, issues of intellectual property rights for digital media and philosophical issues pertaining to the gap between the information "have"s and "have-not"s. These questions are constantly on our minds and I am sure that the symposium will provide an opportunity for active participation in the debate of these issues.

I wish you a pleasant learning experience at the symposium. Have fun.