

INSIGHT

Five Ways to Use Information and Communication Technology for Education



For best results, train the teachers, involve private companies, and share best practices with other school systems.

Introduction

To meet the increasing demand for a workforce with up-to-date skills and competencies aligned with globally competitive industries and continue driving Asian economic growth into the next century, education systems in the region have to embrace information and communication technology, as I explain in a co-authored [research article](#).

This article was adapted from content featured in the [Asian Development Blog](#).

Analysis

ICT allows students to monitor and manage their own learning, think critically and creatively, solve simulated real-world problems, work collaboratively, engage in ethical decision-making, and adopt a global perspective towards issues and ideas. It also provides students from remote areas access to expert teachers and learning resources, and gives administrators and policy makers the data and expertise they need to work more efficiently.

However, access to ICT in the region's schools is limited due to infrastructure constraints, a lack of investment and research into the uses of ICT in education, and a lack of capacity of teachers and school leaders to use ICT to enhance the quality of teaching and learning.

Another challenge is equity, including financial, gender, and racial fairness in access to education. In some countries in Asia, many middle-income parents send their children to private schools, which diminishes the support for maintaining the quality of public schools. In addition, the poor, girls, and children from marginalized communities like castes and tribes sometimes have limited access to quality education.

Efficiency and accountability also needs to be improved. This includes improving student–teacher ratios as well as retention and dropout rates. The education provided also needs to be relevant to socioeconomic conditions, such as matching skills taught to those valued by the global market.

Recommendations

Five recommendations on how ICT can address these challenges include:

1. Take a holistic approach towards the development of ICT in education plans and policies. This includes support for ICT at both the national and individual school level. This includes measures such as involving education stakeholders in how to integrate ICT skills in the curriculum, or tap teachers to help develop policy plans.
2. Build the capacity of teachers, administrators and other education leaders to use and integrate ICT in education systems. Education leaders should be provided with professional development opportunities so they can engage teachers and together demonstrate a shared commitment to ICT in education.
3. Share best practices and lessons learned among countries in Asia, and among schools within the country. This accumulated knowledge can then be used to inform the development of blueprints and tools to better support ICT in education practices.
4. Forge public-private partnerships (PPPs) and collaboration with tertiary institutions to bring in additional technical and management expertise, as well as financial resources. 'Education PPPs' combine the strengths and capabilities of both sides to ensure the sustainability and scalability of ICT in education initiatives. Governments should drive and facilitate partnerships that include attracting private sector investments on a sustained basis, and tap upon the expertise and resources of both private sector and tertiary institutions, with an emphasis on equal access to

quality, ICT-enabled education.

5. Mobilize resources for research and evaluation of ICT in education to spur innovation and scale up its use. This includes working with tertiary institutions to act as research centers. Governments can create incentives for R&D on innovative uses of ICT in education, including for instance making software and hardware more affordable and relevant for students. Rigorous evaluation studies on ICT effectiveness can provide evidence-based justification for transforming the education sector to embrace ICT.

ICT provides countries in Asia and the Pacific the opportunity to transform teaching, learning, and management practices in schools. The need for this transformation is urgent, given the increasingly globalized world in which students and teachers now live. Without it, as future graduates they could end up as part of a workforce that cannot keep up with the demands of the 21st century.

Resources

S. Ra, B. Chin, and C.P. Lim. 2016. [A Holistic Approach towards Information and Communication Technology \(ICT\) for Addressing Education Challenges in Asia and the Pacific](#). *Educational Media International*. 53 (2). pp. 69-84.

Related links

Case Study: [Pulling Together Resources to Power Classrooms with Technology](#)

Insight: [A Pathway to Success - Master Planning for ICT in Education](#)

Insight: [Cyberlearning - The Korean Experience](#)


Meet the expert



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Sungsup Ra chairs ADB's Education Sector Group. At ADB, he has worked as Director of Pacific Strategy and Special Operations, Senior Advisor to the Managing Director General, and Deputy Country Director for Bangladesh and for Nepal. He has worked with public and private entities and taught at leading universities. He is a member of the International Advisory Board of the *Journal of Asia-Pacific Economy* published by Routledge. He holds a doctorate in Economics from the University of Illinois at Urbana-Champaign.

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