

Academy Handout

**Academy of ICT Essentials
for Government Leaders**

PACIFIC ICT MINITERIAL FORUM

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1. Introduction

Today, information and communications technologies (ICTs) are widely accepted as essential tools for reducing poverty, enhancing human development and achieving the Millennium Development Goals (MDGs). However, without visionary policymakers and other ICT-capable government officials the promise of a better future through the use of ICTs is unlikely to be realized.

As part of the United Nations Asian and Pacific Training Centre for Information and Communication Technology for Development's (APCICT) mission (mandated by the United Nations Economic and Social Commission for Asia and the Pacific) to equip policymakers and other government officials with the essential knowledge and skills they need to fully leverage opportunities presented by ICTs to achieve national development goals and bridge the digital divide, the *Academy of ICT Essentials for Government Leaders* was conceptualized.

This strategic decision was guided by participants of the Asia-Pacific Regional Forum on ICT Capacity Building held in Incheon, Republic of Korea in March 2007, where over 200 delegates from 49 countries in the region, as well as ICT experts from around the world, emphasized that the role of APCICT is to provide training that will help reduce the digital divide and promote socio-economic development in developing nations. Delegates from developing countries at the Forum clarified their need to receive more formal training and believed that APCICT is well-positioned to provide such training. Subsequently, in April 2007 the APCICT Governing Council, which is made up of nine nations in the Asia-Pacific region recommended the development of the *Academy* as a well-structured and comprehensive ICT for development (ICT4D) training programme.

2. What is the *Academy*?

The *Academy* consists of a core ICT4D curriculum with eight modules ranging from basic to more advanced topics of ICT4D that can be delivered face-to-face or as online self-study courses. These are stand-alone modules that will be released as open educational resources (OER). Open educational resources are educational materials and resources offered freely and openly for anyone to use, and under some licenses to re-mix, improve and redistribute.¹

The *Academy* training programme aims to ensure the following:

- Provide a comprehensive ICT4D programme catered to policymakers and government leaders while ensuring the content will be mostly non-technical in nature;
- Develop the content in a modular format to maximize flexibility to meet the needs of context-specific learning situations;
- Develop the content for delivery over a variety of multimedia platforms to maximize learning and minimize job disruption for the participants;
- Disseminate the content widely by ensuring that the course materials are developed as open educational resources, whereby trainers in developing countries can take part in the training and then have access to the resources to guide others through the training; and
- Promote South-South cooperation by encouraging the utilization of the developed open educational resources to be used for ICT4D training of policymakers and government officials in other developing regions, including Africa and Latin America.

¹ http://en.wikipedia.org/wiki/Open_educational_resources.

Titles of the initial eight modules are:

- 1 - The Linkage between ICT Applications and Meaningful Development**
- 2 - ICT for Development Policy, Process and Governance**
- 3 - e-Government Applications**
- 4 - ICT Trends for Government Leaders**
- 5 - Internet Governance**
- 6 - Network and Information Security and Privacy**
- 7 - ICT Project Management in Theory and Practice**
- 8 - Options for Funding ICT for Development**

Subsequently, selected modules will be further expanded in depth and coverage and additional modules focusing on ICT4D for the 21st century will be added depending on the needs of the target countries and the urgency of pertinent issues.

Supporting the *Academy* is an online platform (the APCICT Virtual Academy or AVA) where all course materials will be posted for free download, and for customization if necessary. Self-study courses will also be available on AVA for those who require a more flexible learning style. A certificate of participation will be granted upon successful completion of a module. A CD-ROM version of what's online will be produced for those with no or limited Internet access.

In addition, APCICT's e-Collaborative Hub or e-Co Hub, online collaboration workspace, can facilitate participants to share and discuss ICT4D topics, and even work together to customize an existing module or develop a new one. For learners and trainers who wish to read more about a particular topic, they can access the online resource centre on e-Co Hub.²

3. What are the eight modules about?

Module 1 - The Linkage between ICT Applications and Meaningful Development

This module invites participants to explore the various dimensions of the linkage through case studies of ICT applications in key sectors of development in Asia-Pacific countries. The module also highlights key issues and decision points, from policy to implementation, in the use of ICTs to meet development needs. The aim is to foster a better understanding of how ICTs can be used for social and economic development, and to equip policymakers and programme managers with a development-oriented framework for ICT-based and ICT-supported interventions in a range of social sectors.

Module 2 - ICT for Development Policy, Process and Governance

While ICT holds promise for impacting socio-economic development, implementation of ICT applications does not guarantee sustainable development. This module focuses on ICT4D policymaking and governance, providing critical information about aspects of national policies, strategies and frameworks that promote ICT4D. It discusses key ICT4D policy and governance issues, and shows how governments can measure their progress and benchmark that progress against those of other countries.

² For more information on the e-Co Hub please refer to the *APCICT Knowledge Management Roadmap* handout or visit <http://www.unapcict.org/ecohub>.

Module 3 - e-Government Applications

e-Government is generally defined as being “the use of digital technologies to transform government operations in order to improve effectiveness, efficiency and service delivery to its citizens.” This module is a comprehensive introduction on e-government that showcases various essential ICT applications in delivering e-government, including their key elements and concepts, principles and types of applications, strategies and important determinant factors in successfully implementing e-government and future roadmap. It also discusses how an e-government system is built by providing detailed analyses of exemplar systems and identifying design considerations.

Module 4 - ICT Trends for Government Leaders

This module provides insights into current trends in ICT and its future directions. It also looks at some of the key technical and policy considerations when making decisions for ICT development in the local and regional context. The module introduces some of the current ICT applications that are relevant for policymakers and other government officials. In particular, case examples of each type of application are provided and discussed in a way that allows participants to see the potential impact of each type of application, important success factors that need to be in place, and common barriers to achieving success for each type of application. Best practices from countries that have achieved success are highlighted.

Module 5 - Internet Governance

The Internet raises significant challenges for public policy and sustainable human development, both internationally and for individual nations. Hence, the ongoing development of international policies and procedures to govern the use and operation of the Internet. Although the Asia-Pacific region has the biggest share of global Internet users, it is under-represented in fora that develop Internet-related policies. Therefore governments of emerging economies need to understand issues around internet governance in order to have a voice in the global information network. This module examines the on-going development of international policies and procedures that govern the use and operation of the Internet.

Module 6 - Network and Information Security and Privacy

As ICT becomes more prevalent in today's highly networked world, policymakers and other government officials need to understand how to ensure secure systems while maintaining user privacy. In an environment filled with aggressive hackers and attackers, networked systems in developing economies are just as, if not more, vulnerable to network sniffers, denial of service attacks, malicious code such as worms or viruses, and hacker attacks as are developed countries. This module provides participants a high-level understanding of the current threats to ICT security and help them understand, in a non-technical way, the safeguards governments need to take to ensure secure ICT systems.

Module 7 - ICT Project Management in Theory and Practice

Government officers are often charged with managing a variety of socio-economic development projects, such as e-learning programmes, e-health applications and development of telecentres. Unfortunately, while these officers may possess domain specific knowledge, they often lack project management skills necessary to put their ideas into action and use limited resources effectively. This module provides participants with the knowledge, techniques and tools they can use to manage their ICT projects better. More specifically, the module introduces ways to stay within their budgets, meet project deadlines, evaluate and assess its progress, and achieve the benefits expected from their project efforts. Also, current

ICTs applicable to project management are introduced to show participants how ICT can raise productivity and make today's knowledge worker more effective.

Module 8 - Options for Funding ICT for Development

While ICT projects can often be expensive, there are several sources of funding that governments can tap into as they seek to develop the Information Society. This module provides a set of information to participants on where they can look for funding, how to write proposals to gain access to these sources of funds, and how current projects are being funded and the outcomes of these projects.

4. Who is it for?

The *Academy* is designed with a broad range of audience in mind. More specifically, it is targeted at: 1) Policy- and decision-makers in central, provincial and local governments at high level to mid and entry level positions; 2) Managers in the public sector seeking to employ ICT tools for project management; 3) ICT trainers and educators in public ICT training institutes; and 4) Trainers and educators in ICT and other training institutes interested in delivering such curricula.

As a result, the content of the eight modules is mostly non-technical in nature. The extensible modular design aims to maximize flexibility and minimize job disruptions for learners. This means, the modules can be picked and chosen for delivery depending on the needs and skills of the learners. Those with little or no background in ICT4D can choose the pre-determined sequence of comprehensive training that begins with the basics and move on to more advanced topics. Those with some knowledge of ICT4D can select specific modules they would benefit most from.

As for trainers and educators in training institutions, colleges and universities, they could use some or all of the modules as is, add them to their existing training programme, and/or modify them to fit learners' needs.

5. How is the *Academy* being delivered?

In order to ensure that the *Academy* reaches all its potential learners in the region, APCICT has employed multi-channel approach to deliver the *Academy* contents, namely face-to-face, online distance learning, CD-Roms and publications.

Within face-to-face approach, *Academy* modules go through field-testing against policymakers and ICT trainers from the region for final solicitation of feedback and fine-tuning of the content. APCICT then will invite resource persons from national training institutes around the region to conduct a Training of Trainers, in order to strengthen the national pool of trainers, thus paving the ground for quality and sustainable national level roll-out.

1) Training of Trainers (TOT)

Launch of the *Academy* and the first TOT

Subsequent to the launch of the *Academy* on 16 June 2008 at the Global Forum for Building Inclusive Internet Economy during the OECD Ministerial Meeting, APCICT organized the first Training of Trainers (TOT) in the Republic of Korea from 16 to 28 June 2008 for over 41 trainers from National Training Institutes from the region. Apart from providing training on the modules, specific sessions were also held on instructional design to train the participants on

the appropriate teaching methodology for the *Academy* modules as well as modes on how they could customize the training content to best suit their local environments.

APCICT plans to host another round of TOT in March 2009 and will also invite back the regional and national partners to foster and facilitate the expansion of the *Academy* in the Asia-Pacific region.

Second TOT (9-14 March 2009)

The second round of TOT is scheduled to take place from 9 to 14 March, 2009 in the Republic of Korea. This TOT focuses on the technical cluster of the *Academy*, namely ICT Trends for Government Leaders, Internet Governance and Network and Information Security and Privacy. Specific sessions will also be held on instructional design to train the participants on the appropriate teaching methodology for the *Academy* modules as well as modes on how they could customize the training content to best suit their local environments.

The training course seeks to engage up to 40 participants representing national training institutes responsible for the training of government officers on ICT from across the region.

2) Regional and national Academy roll-out

The *Academy* has generated significant amount of interest and demand in the region. Several regional and national training institutions have expressed their interest to roll out the *Academy* modules as part of their training curriculum for government officers. Many government ministries have initiated discussion on partnership for national roll-out of the *Academy* with APCICT.

APCICT has been working closely with the over a dozen other national and regional partners and providing guidelines and advice to collaboratively formulate national implementation plans to ensure that the *Academy* reaches all its potential learners and the knowledge imparted from the *Academy* is fully exercised.

APCICT is also pursuing a south-south cooperation strategy and has been in continuous dialogue with UN Economic and Social Commission of Africa, which is undertaking customization of the *Academy* for the African-version launch scheduled in March 2009.

Several regional and national level roll-out plans are already well on their way. For example, the Pacific Islands Workshop of the *Academy* was held in the Cook Island in parallel with PacINET 2008 in September 2008. Mongolia hosted its first national *Academy* in December 2008. In 2009, APCICT and partners in the Philippines, Tonga (with The South Pacific Applied Geoscience Commission or SOPAC) Indonesia and Afghanistan will be rolling out the national level *Academy* in February and March, respectively alone. The Russian and Bahasa Indonesian versions of the *Academy* are set to be launched in the second quarter of 2009.

3) Online distance learning platform

APCICT Virtual Academy (AVA), the *Academy's* online distance learning platform, is designed to minimize disruption to the participants' work environment by enabling them to study the materials at their own pace. AVA is currently being developed to ensure that all the *Academy* modules are easily accessible online for download, re-use, customization and localization. In January 2009, AVA will be launched with course materials from four modules of the *Academy*, encompassing various functions including virtual lectures, learning management tools, content development tools and certification.

CD-Rom versions of AVA will also be produced in order to reach audience without stable internet connectivity to benefit from AVA.

4) Publication

On top of the face-to-face and online distance learning delivery, APCICT plans to publish the manuscripts of the initial eight Academy modules in the first quarter of 2009. The online versions of the 6 Academy modules are already on APCICT website for download.

APCICT also plans to publish a briefing series of the Academy that captures key aspects of the module content such as policy aspects targeting high level policymakers starting first quarter of 2009.

6. Academy: The road ahead

Through the *Academy*, APCICT strives to enhance national capacity to effectively plan, design and implement ICT-based tools and solutions to the people, resulting in greater access to information and accelerated socio-economic development of ESCAP's member and associate member countries.

At the heart of APCICT's strategy for successful dissemination of the *Academy* is the synergetic collaboration with partner institutions. APCICT believes that only through national training institutes and government championing the cause of the *Academy* roll-out, taking ownership of the initiative and investing resources, can the *Academy* truly be expanded in the region.

APCICT is committed to providing its partner institutions with content of the modules along with all accompanying materials including reading lists, case studies and access to AVA to foster more effective delivery of the *Academy*. Subject to funding availability, APCICT also will be providing an orientation to the *Academy* and hands-on training for trainers where needed.