NSERC/CNRL/XEROX/MCGRA W HILL INDUSTRIAL RESEARCH CHAIR FOR ADAPTIVITY AND **PERSONALIZATION IN INFORMATICS**

Athabasca University, Canada kinshuk@ieee.org http://kinshuk.athabascau.ca

Guidelines for Formulating National Strategies on Smart Learning

Kinshuk, PhD

ASSOCIATE DEAN, FACULTY OF **SCIENCE & TECHNOLOGY**

PROFESSOR, SCHOOL OF **COMPUTING AND INFORMATION Systems**

Smart Learning

- Smart learning aims at making learning process adaptive, effective, efficient, engaged, flexible, thoughtful and accessible.
- Smart learning environments differ from typical online learning environments in that they are:
 - highly student centric
 - intelligent and open
 - integrate digital virtual reality learning space



National Strategies for Smart Learning

- While there is increased awareness about smart learning in Arab countries, significant differences exist in the preparedness at both national policy and implementation level.
- A highly systematic and determined action plan is needed at national level to achieve any significant impact of smart learning.
- Countries therefore need to formulate national strategies for smart learning.

The Guide for Formulating National Strategies for Smart Learning

- The Guide provides a framework and methodology for the development of national strategy for smart learning, action plan and monitoring framework.
- It is targeted for use by the Ministries of Education and the Ministries of ICT for various countries in Arab region.
- The Guide is developed as part of the ITU Arab Regional Initiative on Smart Learning, in partnership with the Arab League Educational, Cultural and Scientific Organization (ALECSO) and Intel.



Using the Guide

- The Guide provides a holistic view of how various countries can approach towards formulating their national strategies for smart learning.
- Individual countries can tailor various components of the Guide to suit their existing national policies, resources and requirements, and to the expectation of their citizens.
- The countries can choose, refine and develop the components that need more focus within their own context, and create their own unique national strategies for smart learning.

Outcomes of Using the Guide

- The outcomes of using the Guide are not static and represent a point-in-time understanding of what a country needs to achieve in order to address its particular goals and challenges.
- Changes in country's strategic context, and advancements in ICT infrastructure and use, will require a dynamic approach to updating the national strategies for smart learning and the associated action plan to keep them relevant.



Context of the Guide

- The Guide covers various aspects of strategy development and strategy planning process.
- The Guide is developed within the context of various international declarations made by the world leaders to improve educational opportunities for world citizens.
- The Guide also aligns with the aims and objectives of the International Telecommunication Union and the Arab League Educational, Cultural and Scientific Organization.
- The Guide is divided into eight modules.



Module 1: Overview

- This module provides an overview of the strategy development and managing its development.
- It looks at the context of the Qingdao Declaration and the Incheon Declaration for Education.
- It also focuses on the Goal 4 of the proposed Sustainable Development Goals (SDGs) which is related to education.
- The ITU Broadband Commission Report and the ITU SDGs/Technology Matrix provide background for this module.

Module 2: Preparation

- This module focuses on how to prepare for smart learning strategy development and strategic planning.
- It provides guidelines for creating an enabling environment among all concerned stakeholders.
- It also covers issues related to internal and external auditing within national context and trends analysis in education and ICT areas, SWOT analysis, and identification of priorities for the strategy.

Module 3: Vision, Mission and Aims/Goals

- This module looks at formulation of vision, mission and aims/goals.
- The external and internal auditing, and the identified international and national trends and priorities are analyzed.
- Guidelines are provided for developing:



Vision: role of smart learning in developing the country's human resources



Mission: role of education and ICT institutions



Aims

Goals

Objectives

Module 4: Scenarios and Modeling

- This module provides guidelines for developing scenarios and modeling.
- It discusses how to identify various scenarios that can enable the countries to achieve various strategy aims.
- This module also outlines the process of selecting the most appropriate and costeffective scenario.



Module 5: Strategy selection and formulation

- This module deals with the guidelines for selection and formulation of strategies.
- It looks at:







Connectedness



Content and curricula

Module 6: Documentation

- This module provides guidelines for documenting the smart learning strategy.
- It focuses on the strategy document, which is the product of the strategy development process.
- It outlines the objectives/purpose of the strategies for smart learning, and the goals or deliverables which are necessary to achieve these objectives.

Module 7: Action plan

- This module looks at developing the action plan.
- It provides guidelines for how to translate the aims and goals into action plan.
- Various goals covered in this module are:



Module 8: Monitoring implementation and evaluation

- This module provides guidelines for monitoring the implementation of national strategies for smart learning and evaluation.
- It focuses on the basics of assessment of progress and the need for information systems and the monitoring and evaluation framework.
- It also discusses how to support governance of implementation and reporting (internal and external as well as measuring the impact).

Some recommendations

- Involve key education and ICT stakeholders in crearting national strategies for smart learning, the action plan and its subsequent implementation.
- Establish governance mechanisms to provide improved visibility, coordination and control of various smart learning activities.
- Establish the strategic context for smart learning to:
 - provide the foundation for the national strategies for smart learning and action plan
 - enable the government to make informed decisions on which opportunities to pursue

Some recommendations

- Form an understanding of the current education environment and ICT infrastructure in terms of the programmes, projects and smart learning components that already exist.
- Identify short-, medium- and long-term goals and recognize the importance of demonstrating outcomes and benefits throughout the process of national strategy implementation.

Advance draft of guidelines

Advance draft of the guidelines is available on the Smart Learning Forum website for all stakeholders:

http://www.itu.int/en/ITU-D/Regional-Presence/ArabStates/Pages/Events/2015/SL/

All comments and feedback should be sent to Mr. Karim Abdelghani before January 31st 2015 at karim.abdelghani@itu.int



Thank You!



