

Governments and practitioners in the education sector alike recognize that information and communication technology (ICT) can play an important role in supporting educational improvement and reform.

To be successful in today's information-rich and knowledge-based societies, students **and** teachers must utilize technology effectively and develop ICT skills. Bringing ICT into the classroom serves to:

- Help students develop the skills necessary to live and work successfully in the 21st century;
- Support teachers to improve students' classroom learning experiences with interactive and dynamic ICT-based resources.

One of the challenges in incorporating a technology element in education has been to ensure that teachers have developed the appropriate ICT knowledge. Similarly, curriculum and training providers lacked a clear set of internationally-recognized guidelines on what constitutes appropriate ICT professional development for educators.

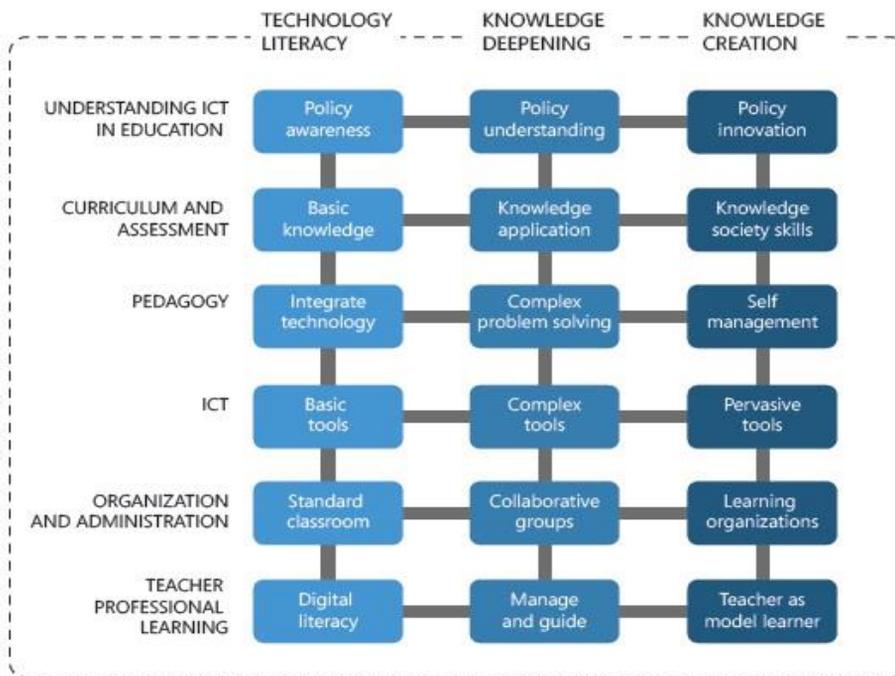
Competencies for Incorporating ICT into the Classroom

To address these challenges, the United Nations Educational, Scientific and Cultural Organization (UNESCO) teamed up with Cisco, Intel and Microsoft, as well as the International Society for Technology in Education and the University of Virginia, to develop the ICT Competency Framework for Teachers (ICT-CFT) project.

Launched in 2008 after five years of research, **UNESCO's ICT-CFT** provides guidance for Ministries of Education, educators, and curriculum and training providers on how to improve teaching through the use of ICTs. The ICT-CFT will be available in English, Spanish, French, Portuguese, and Russian, and is being used by many practitioners to define and reform their offerings, including:

- Policy Framework that explains the rationale, structure and approach of the ICT-CFT project;
- Competency Framework Modules that explain how three stages of educational development can be mapped against six aspects of a teacher's work to create a framework of teacher competencies modules;
- Implementation Guidelines that provide detailed specifications for each module.

The **UNESCO ICT-CFT** was built to support local governments and public and private sector organizations to create content, execution frameworks and measurement of teacher competencies as part of a comprehensive approach to education reform.



“Education is crucial in building inclusive knowledge societies and improving understanding and use of technology. The ICT Competency Framework for Teachers enables educators, learners and their communities to advance the proliferation of ICT skills for the next generation. We are proud of our partnership with private sector technology partners to develop this framework which supports teachers as they incorporate ICT into their teaching methodologies and classrooms.”

Janis Karklins, UNESCO Assistant Director General for Communication and Information.

The ICT-CFT framework is arranged in three different approaches to teaching, corresponding to the successive stages of a teacher’s development: **technology literacy, knowledge deepening, and knowledge creation**. It includes six components of an educational system – policy, curriculum, pedagogy, ICT, organization, and teacher training.

Application and deployment of ICT-CFT

To address the issue of quality assurance, UNESCO is providing assistance in the deployment of the ICT-CFT at different levels:

- Strengthening the national capacity to localize and further develop ICT-CFT standards,
- Capacity building for public teacher training institutions in adapting curriculum and improving the capacity of teacher educators, and
- Capacity building for examination developers and examiners.

Awareness-raising and training of UNESCO field staff on the ICT-CFT will be a key component of this strategy.

Each of the matrix cells constitutes a module in the framework. Within each of these modules, there are specific curricular goals and teacher skills.

While **UNESCO’s ICT-CFT** specifies the competencies needed to bring ICT into education, it remains up to governments, education systems, non-governmental organizations and private providers to deliver the curriculum and training programs that align with these competencies. Some examples of how the ICT CFT has been adapted include: ICDL for Teachers program, Cambridge University’s ICT Certification offerings, Cisco’s Networking Academy instructor training, Intel’s Teach Program Curriculum, Microsoft’s Digital Literacy and Learning curricula, and others.

Providers interested in participating in **UNESCO’s ICT-CFT** Framework are allowed considerable flexibility in their implementation.

ABOUT UNESCO

The United Nations Educational, Scientific and Cultural Organization (UNESCO) - is the UN agency responsible for the promotion of international cooperation in the fields of education, science, culture and communication. UNESCO functions as a laboratory of ideas and standard setter to forge universal agreements on emerging development and ethical issues. It also serves as a clearinghouse for the dissemination and sharing of information and knowledge, while helping Member States build their human and institutional capacities. www.unesco.org.



ICT Competency Standards for Teachers: Implementation Guidelines

Implementation guidelines providing a detailed syllabus of the specific skills to be acquired by teachers within each skill set or module.

Download at <http://unesdoc.unesco.org/images/0015/001562/156207e.pdf>



ICT Competency Standards for Teachers: Competency Standards Modules

While the ICT-CFT specifies the competencies needed to bring ICT into education, it remains up to approved governmental, non-governmental, and private providers to deliver the curriculum and training programs that align with these competencies. The ICT Competency Standards for Teachers have been designed by UNESCO and its partners to help educational policy-makers and curriculum developers identify the skills teachers need to harness technology in the service of education. Download at <http://unesdoc.unesco.org/images/0015/001562/156209E.pdf>



ICT Competency Standards for Teachers: Policy Framework

The document explains the policy framework, with the rationale, structure and approach of the ICT CFT project.

Download at <http://unesdoc.unesco.org/images/0015/001562/156210E.pdf>