



MPICT

**Development of an Industry-Driven Workforce Study:
How Community Colleges Can Partner with Industry to
Study the Workforce Needs of the ICT Industry**

City College of San Francisco Mission Campus

Thursday, January 8th, 2009

- Computer, Networking, Telecommunications and Information Technologies have largely developed and evolved separately:

- in different academic departments,
- in different companies and R&D groups, and
- in separate departments within organizations



- Those previously separate areas are converging rapidly.

- From many to fewer devices
- From multiple networks to single multipurpose networks
- From many to fewer organizational departments

- This trend is frequently called “**Convergence**” in the U.S.



- Globally, the recognized term for Convergence is **Information and Communications Technology (ICT)**.
- ICT includes computer hardware and software, networking systems, wired and wireless telecommunications, the Internet, technical project management, information (library) sciences, programming and management, maintenance and operations for all of the above.





What is ICT?

An umbrella term, widely used outside the U.S. and in the United Nations, to encompass all rapidly emerging, evolving & converging:

- computer,**
- software,**
- networking,**
- telecommunications,**
- Internet,**
- programming and**
- information systems technologies.**





United Nations

The United Nations, for example, uses ICT in its:

- Global Alliance for ICT and Development, a global forum and platform for policy development,
- Information & Communications Technologies Task Force and
- UNESCO.



European Union

The European Union uses the term ICT, for example:

- in its [ICT Task Force](#), which conducts research and develops policy recommendations, and
- at [CORDIS](#), for strategic [R&D](#).

EU foreign aid efforts focus on ICT in [Latin America and Africa](#), [China](#), [Southeast Asia](#), and the rest of the world.



Australia

ICT is used in Australia, for example, by

- the [Commonwealth Scientific and Industrial Research Organisation \(CSIRO\)](#), its national science agency and one of the largest and most diverse research agencies in the world.



Others

- Also using the ICT term are
 - [New Zealand](#),
 - much of [Africa](#),
 - [Canada](#),
 - the [International Telecommunications Union \(ITU\)](#)
 - and the [World Bank](#).
- The term ICT is emerging as global standard terminology.

- Curiously, ICT is currently rarely used or recognized in the U.S.
- The Mid-Pacific ICT Center and the National ICT Center have adopted the term and are championing its use as a global standard in the U.S.
- In a global knowledge economy, dependent on ICT, we should have a common framework.



- Adoption
- Myopia
- Resistance
- No existing data or category
 - DOL
 - EDD
- Jobs outside of “ICT Industries”
 - 80%?

Challenges





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