Education briefing paper:

Employability and workforce development

This is a seminal moment in history for education and competitiveness. The fundamental shifts in the economy demand bold and creative policies. Formalizing the connection between education and competitiveness, with an agenda focused on 21st century skills—which are widely acknowledged and supported by voters, employers, educators, researchers, and thought leaders—is the starting point.

The Partnership for 21st Century Skills

Key concepts

Employability
Formal education usually provides only a very basic introduction to the world of work for young people, and often they enter the workforce without the knowledge and skills to be immediately productive contributors. Some students may take relevant professional courses or have short periods of work experience during school, but the vast majority of them do not take advantage of these opportunities to learn the skills and attitudes needed in commercial enterprises.

Workforce development
Employers generally prefer to recruit staff who already have the necessary skills, but shortages in key areas—like more advanced information and communication technology (ICT) skills—mean they can't always do so. As a result, they often need to train existing staff to undertake new roles.

Changes in the workplace, such as new technology and work methods, and long-standing employee objectives, like individual career goals, are also likely to demand new skills from the existing workforce. This is particularly the case as developed countries reduce their manufacturing bases and move toward establishing a knowledge economy to stay internationally competitive.

Government education policy and training programs
National governments are responsible for developing policies that keep their economies strong and their citizens gainfully employed. As local economies experience the impact of mechanization and globalization, governments will devise new policies and programs to retrain people made redundant or otherwise disadvantaged in the labor market.

This is particularly significant in times of world recession, when governments may be inclined to reduce their investments in ICT skills. In difficult economic times, the need for public services to deliver more within a framework of reduced costs argues for increased investment in ICT skills to boost productivity. The links between ICT investment and productivity are well documented.

In a modern knowledge economy, the use of computers in work becomes more common and increasingly sophisticated. Jobs that previously required no more than the use of pen and paper now demand familiarity with hand-held terminals to track parcel deliveries, place restaurant orders, and control retail stocks. Digital literacy begins to replace written literacy in determining whether applicants have all the necessary skills for employment.

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In developing economies, the choices may be few. For example, not everyone will be able to continue their education, so individuals will have to rely on obtaining further training within the work environment. Or they may have to take on unpaid part-time study or e-learning on their own time. In such circumstances, governments ought to review the suitability of their education programs to meet emerging national skills requirements.

Key issues

The need to help ensure that government-led programs are sustainable
Governments may hope to raise national skill levels through funding specific programs, such as those for women re-entering employment or those for the socially disadvantaged. Alternatively, through increased funding for technology-related university courses, they may promote the development of certain skills with the aim of becoming more internationally competitive.

To help ensure sustainability, workforce development programs need to address the following:

Finance
Governments will often expect business to pick up the eventual costs of workforce development, though they are likely to provide funding to get it started.

Human resources
A limited supply of qualified trainers to lead courses may necessitate the central creation of model course materials for free distribution to schools or trainers

Time
Time away from work means reduced efficiency. Computer-based solutions and e-learning courses might enable better use of the working day.

Project leadership and management
Evidence suggests that human networking and business relationship building by training center managers are at least as important as trainees' ICT skills acquisition in securing employment for them after they complete the program.

The need to address more advanced ICT skills requirements
The acquisition of basic ICT skills is an important first step, but research indicates that on their own they are rarely enough. There is, though, little doubt that they represent the most natural starting point for government-sponsored programs in the developing world.

In the United States, the study by the Partnership for 21st Century Skills, "Are They Really Ready to Work?" (2006), provided a comprehensive picture of the skills needed in the workplace this century—a departure from the traditional emphasis on basic literacy and numeracy. The study asked 400 U.S. employers what skills they valued in a new employee. The findings state that a new set of "applied skills," including information technology application, diversity, and teamwork/collaboration, will be increasingly important to help the United States remain internationally competitive.

In Europe, the International Data Corporation white paper, "e-Skills – The Key to Employment and Inclusion in Europe" (2007), reported on a survey of 600 employers in 10 European countries. It concluded that, overall, the European workforce had good basic ICT skills, but the paper predicted a growing future demand for advanced ICT skills and e-business skills. Three-fourths of this survey's respondents believed the workforce's ICT skill levels will be crucial for their organization's future, in terms of competitiveness, innovation, and growth.

Lack of time and money can be a barrier to helping ensure that employees have these critical skills. Consequently, organizations may rely on individual employees to pick up skills as they go along. Too few make systematic use of more flexible delivery solutions, such as e-learning, that could remedy the situation.

Taken together, the findings of international research suggest the need to reshape future government-sponsored programs away from wide-reaching basic ICT skills programs and toward more tightly targeted, flexibly delivered provision for:

Applied ICT skills
The use of common generic software tools and specialized tools supporting business functions, such as accounting, sales and marketing, or production applications.

E-business skills
The capability to exploit opportunities provided by ICT, notably the Internet, to:
- Help ensure more efficient and effective performance by different organizations.
- Explore new ways of conducting business and organizational processes.
- Establish new businesses.

With the exception of vendor-supported and certified training programs to develop advanced skills for maintenance of networks (Cisco) and operating systems engineering (Microsoft, Red Hat), few examples of publicly funded advanced skills training exist at present. However, these may provide valuable models for the required skills enhancement.

Global solutions
Brief reports from exemplar programs undertaken in Latin America and Europe
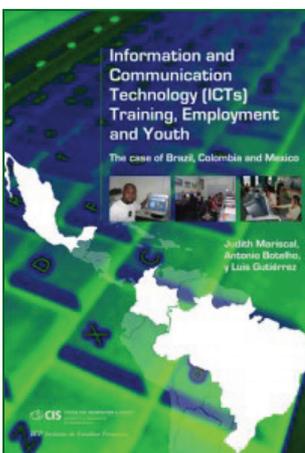
### CIS Report on Computer Skills Training and Youth Employability in Latin America
CIS Report on Computer Skills Training and Youth Employability in Latin America (Center for Information and Society, University of Washington, September 2008). Funding for this study was provided by the Microsoft Community Affairs Unlimited Potential Community Technology Skills program

"Teresa is one of many young mothers enrolled in morning computer classes at the Santa Fe Community Center in Mexico City. She originally studied to become a secretary but couldn't find a job so she ended up working at a local paint factory instead. The computer classes have given her new hope. When Teresa finishes her classes, she will ... try again for the secretarial career she wanted before now that she knows how to use a computer and email. Teresa even looks forward to helping buy a new house for her young family."

Summary of key findings:
- Program graduates believed that the ICT training they received helped them overcome economic and social constraints (that is, it offered them more opportunities)
- The ICT skills that graduates acquired made them feel empowered and gave them new opportunities to teach others and to seek employment.
- Training helped build self-esteem and gave graduates a sense of satisfaction because they had expanded their opportunities.
- The positive perceptions and high expectations of graduates did not always translate into employment.
- Around half [of those studied] looked for work after taking these courses, but less than one-fourth found it; only 2-9 percent started a business.
- The percentage of graduates able to apply their new computer skills in their new jobs varied widely by region.

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- Training center leadership was critical for the effective fulfillment of training objectives, the building of partnerships for center sustainability, and the employment of its graduates.
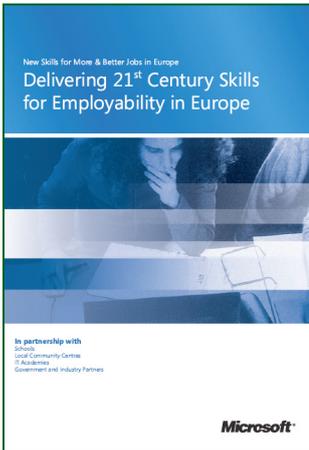
Delivering 21st Century Skills for Employability in Europe (2006)

The European Alliance on Skills for Employment (a collaboration among members of the European e-Skills Certification Consortium [eSCC], with the support of State Street Corporation and Randstad Holding nv) expects to provide ICT training for 20 million people in Europe by 2010.

The alliance has no published findings available at this stage, but independent research shows that human resources managers in Europe:

- Regard certified IT skills as important for both IT and non-IT roles.
- Would choose candidates with IT skills certifications over candidates without them.
- Would pay an average of 6.9 percent in additional salary for these certified skills.

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