Policy recommendations

Digital literacy

The opportunity

Computer and internet literacy, familiarity with productivity software, fluency using a wide range of digital devices—these are all essential workplace skills for anyone who hopes to thrive in the 21st century digital economy. For governments, expanding digital literacy can play a key role in promoting social and economic inclusion, improving public safety, increasing civic engagement, and expanding access to public-sector services. And for businesses, a workforce with strong computing skills is essential to building a successful cloud-enabled organization and the foundation for the creation of any innovation-driven industry. Today, many innovative companies are creating jobs that require computer-based skills faster than they can find trained workers to fill them.

The challenge

While the connection between digital literacy and economic opportunity is well-understood, many governments are struggling to reach their goals for increasing digital literacy, particularly in the face of competing policy priorities and limited budgets. The answer lies in expanding access to digital literacy education and skills training through programs that emphasize computer programming and other essential 21st century skills, including digital communication and collaboration, computational thinking, and problem-solving.

Policy recommendations

Programs that make digital literacy a fundamental component of education at all levels and that encourage workers to strengthen these skills throughout their careers are essential for any society that seeks to take advantage of the

opportunities that cloud computing offers to drive economic growth, create jobs, address social challenges, and increase civic engagement and empowerment. Key steps include:

Invest in technology and skills training. To help ensure that people have the skills they need to succeed in a cloud-based economy, secondary and post-secondary schools should offer technology education and information and communication technology skills training. Fortunately, there are a range of innovative and low-cost approaches to help individuals become digitally literate. For example, new computing devices and services—often enabled by the cloud—hold tremendous promise for one-to-one learning programs, offering richer, more personalized learning environments. Equipping students with tablets and other computing devices allows teachers to utilize new technologies to improve student learning.

Integrate digital literacy into the broader curriculum. We should move away from the current approach of teaching technology skills, which centers on sending large groups of children to spend 40 minutes in a dedicated computer room and then has them use pen, paper, and chalkboard-based education for the rest of their classes. Digital literacy can also be developed by integrating computing devices, software, and online services into instruction for other subjects, which can help familiarize students with information and communication technology and cloud computing without them even realizing it.

Improve access to online services. The availability of online services in remote and underserved communities can be instrumental in expanding the quality and accessibility of education, training, and broader civic engagement. The World Bank found that across 12 African countries, 9 percent of people

with mobile phones or an internet connection use them to access formal education services every day, and 33 percent use the internet at least occasionally to find free education content.

Promote entrepreneurial skills. Policymakers increasingly see entrepreneurs and small-business owners as essential to job creation and economic growth. Governments can promote entrepreneurship and small-business creation by partnering with companies and nonprofits to provide young people with the technology, skills, and connections needed to launch businesses and create jobs for others. Building their businesses on cloud computing platforms allows them to pay only for the computing power their business needs and easily scale up as it grows.

Incorporate training for students and consumers on internet safety, privacy, and security. Today's global society is creating a new digital culture where rules and social norms are sometimes unclear. Individuals and families need to learn how to be good digital citizens and develop a sense of responsibility about making sound, ethical decisions online. Rather than relying solely on protective measures, offering instruction in online safety, privacy, and security that includes digital citizenship will help all people of all ages interact more safely online. Learning about digital literacy, digital ethics, and digital civility is critical in our 21st century world.

Leverage the private and nonpro it sectors. The private sector and nonprofits can also help governments improve digital literacy skills for citizens of all ages by providing training and apprenticeship opportunities, and by increasing corporate contributions of funding and cloud computing resources to support digital literacy initiatives.

Evidence and further reading:

World Economic Forum: "New Vision for Education: Unlocking the Potential of Technology"

For links to this and other resources, please visit:
http://www.microsoft.com/cloudforgood