

Empowering women through STEM education

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Women have played and continue to play vital roles in society and the economy – from family matriarch to caregiver, to wage earner to political leaders and policymakers. However, in many parts of the world, there remains a huge disparity in women's rights. Since the Beijing Declaration and Platform of Action was proclaimed following the Fourth World Conference on Women 20 years ago, great strides have been made in the advancement of equality, development and peace for women every-

where in the interest of all humanity. That does not mean the job is done.

In fact, nine years of data suggests we will have to wait 80 more years for gender equality in the workplace, according to the 2014 World Economic Forum's 'Global Gender Gap Report.' Progress across the four pillars measured in the report – economy, politics, health and education – has been uneven. Although many countries have already reached parity on educational attainment, the trend is actually reversing in some parts

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of the world. Nearly 30% of the countries covered have wider education gaps than they did nine years ago.

With women accounting for one-half of a country's potential talent base, empowering



them yields one of the highest returns of all development investments. As women become more economically independent they also become more significant consumers of goods and services, including for the majority of household purchasing decisions. Research has also shown that women are more likely than men to invest a larger proportion of their household income to the education and health of their children, making them powerful catalysts for change in society.

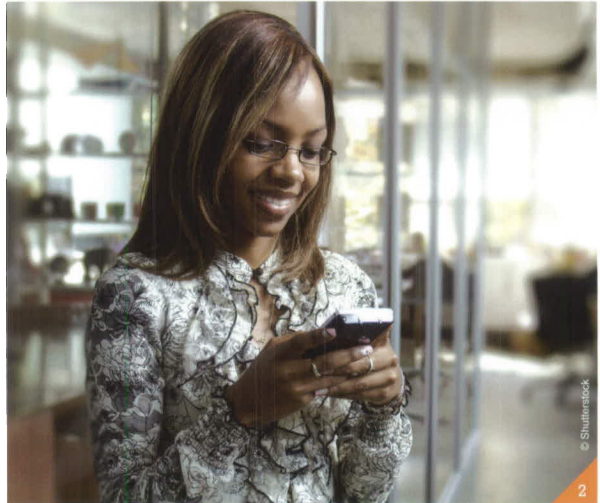
Therefore, a nation's competitiveness in the long term depends significantly on how it educates, trains, and equips this half of the talent base. Providing them with the same rights, responsibilities and opportunities as the other half is a more than appropriate start.

As the world transitions to the Internet of Everything (IoE) – where people, processes, data and things are intelligently connected – more opportunities arise. Women in particular can benefit from these interconnections, providing them with technology gateways to exchange information, obtain resources and tools, mentor and be mentored.

Consider this: the World Wide Web was just taking off in 1993 and the first smartphone was introduced less than 10 years ago. Today there are more than 7 billion people on earth and over 10 billion devices. It is predicted that there will be 21 billion networked devices and connections globally by 2018, with a staggering 50 billion predicted for 2020. In addition to opening education and collaboration avenues, the IoE phenomenon specifically creates new career growth and opportunities in science, technology, engineering and mathematics (STEM) fields. As a global society, we are not developing IT talent fast enough to keep up with the pace of demand.

People with skills in information and communication technology (ICT) are in demand in every country, in almost every field. However, women comprise less than 30% of workers in the computer science, engineering and physics fields in some of the world's emerging economies. Many companies report difficulty finding skilled people for technology jobs. To that end, women represent a large untapped resource of technology talent.

STEM skills serve as the building blocks for the next generation of scientists, inventors, engineers and entrepreneurs, who will



address the most pressing global challenges of the century. With STEM education, women become equipped to find sustainable jobs and lifelong careers allowing them to maximize their contributions to their communities and the economy.

EMPOWER WOMEN, CHANGE THE WORLD

Three ways we can support greater economic empowerment of women and increased economic prosperity include:

- Educating girls, specifically in STEM fields. Women outnumber men in higher education in many places but many do not enter the workforce, or enter and then leave. By encouraging STEM education, women can help fill the growing IT skills gap while contributing to higher productivity activities and economy-wide competitiveness. The Cisco Networking Academy provides training and professional opportunities for millions of students globally. The Global STEM Alliance is an international initiative comprised of a collaboration of governments, corporations, educational institutions and nongovernmental organizations working together to assure the next the generation of STEM innovators.
- Promoting women's political rights and participation. Strengthening women's

voices, particularly through political empowerment, provides a platform to invoke far-reaching policy changes, thereby improving conditions, resources and opportunities for women. When the number of women involved in political decision-making reaches a critical mass, their decisions, which take into account the needs of a wider segment of society, can lead to more inclusive policies and results.

- Practicing gender parity in the workplace. Countries that invest in girls and integrate women into the workforce tend to be more competitive. Gender diversity also fosters a more creative and innovative workforce. With talent shortages projected to become more severe in much of the developed and developing world, it is imperative for business to have access to female talent.

Everyone has the capacity to be extraordinary. Often, they just need the right opportunity and circumstances. Our new connected world brings technology and resources together, creating enablers that can help women across the globe accomplish extraordinary things – for themselves, their families, their societies and the world. 🌍