

# Open Consultation: Bridging the Digital Gender Divide ITU Council Working Group on International Internet-Related Public Policy Issues December 15, 2017

#### **SUMMARY**

The U.S. Council for International Business (USCIB) appreciates the opportunity to participate in the open consultation convened by the ITU Council Working Group on International Internet-related Public Policy Issues (CWG-Internet) on the topic of "Bridging the Digital Gender Divide." USCIB is a U.S.-based trade association composed of more than 300 multinational companies, law firms, and business associations from every sector of the U.S. economy, with operations in every region of the world. In particular, USCIB Members include a broad cross-section of the leading global companies in the information and communications technology (ICT) sectors.

USCIB organized a workshop at the 2016 Internet Governance Forum (IGF), <u>"An Internet of Women by 2020: WSIS Vision into Reality."</u> This submission highlights key points from that workshop that address questions posed in this open consultation. It also provides insights from USCIB Members about challenges they have encountered in their efforts to bridge the gender digital divide and a sampling of industry initiatives aimed to close this gap. Highlights are as follows:

- The challenge of bridging the gender digital divide must be addressed holistically; there is no one single factor driving the division or the resolution;
- There is a dearth of data and metrics focused on the extent of female participation in the digital economy, which hampers efforts to identify gaps;
- Efforts to measure engagement in the digital economy do not appropriately account for cultural factors that often serve as the most stubborn barrier to bridging the gender digital divide;
- Partnerships are critical, between the public and private sectors, business and non-profits, intergovernmental organizations, and between local and national governments. No one organization can tackle this problem alone;
- Women need to be assured that the online environment is safe;
- Policy implementation and follow-through are critical; and
- Efforts to bridge the gender digital divide are most effectively addressed via multistakeholder processes.

# Best Practices: Increasing Internet Digital Literacy for Women/Girls

The central theme that emerged from USCIB's 2016 IGF workshop is that there is no one "silver bullet" that will bridge the gender digital divide. <a href="GSMA's Connected Women Initiative">GSMA's Connected Women Initiative</a> determined that such issues as the cost of equipment (computer or handset), costs of data, and basic connectivity serve as barriers for women in the digital economy. However, the GMSA also determined that addressing those issues alone will not bridge the gap. Issues such as basic literacy, online safety, digital literacy, and other challenges require equal attention.

Thus, the challenge of enabling more women to become productive participants in the digital economy must be addressed *holistically* – through initiatives that proceed simultaneously, at both the grass-roots and global levels, and ideally through multistakeholder processes. The following

comprise key elements of a comprehensive, holistic approach to increase Internet access and engagement in the digital economy for women and girls:

- <u>Building Infrastructural Capacity</u> Accessibility of networks, network quality and network coverage are still lacking in many developing countries, which hamper the ability of women to participate in the digital economy. The private sector has played a key role in deploying digital communications infrastructure and has enabled the delivery of a wide array of ICT services throughout the world. To ensure continued improvements in infrastructural capacity, however, business needs governments to provide an enabling policy and regulatory environment for such investment. Such an environment would feature telecommunications policies that minimize unnecessary regulation of new services, stimulate competition, and encourage continued innovation.
- Enhancing Digital Literacy Providing connectivity is not enough to ensure that more women and girls will participate in the online ecosystem. Infrastructural improvements must be complemented by greater focus on basic literacy. Both the GSMA initiative and the work of Women in Global Science and Technology determined that in many developing countries insufficient access to basic education for young girls placed them at a disadvantage in the digital world. A sound educational foundation is essential in order to foster the development of digital skills as well as more comprehensive and advanced training in the science, technology, engineering, and mathematics (STEM) disciplines.

The ICT industry has pioneered efforts aimed at improving everything from basic online skills to building STEM expertise in the formative years of girls (kindergarten) through high school and beyond. The following are very compelling examples of how business has responded to the challenge of improving digital literacy:

- Chile, dedicated to identifying talented women who live in areas with limited opportunities and providing them with coaching in web development. With financial support from AT&T, Laboratoria seeks to create the next generation of female web developers through an educational program in which young Mexican women receive practical, accessible, comprehensive, and job-oriented education. Once they complete the program, graduates are connected with companies so that they can obtain jobs including potentially with AT&T that promote their professional development and raise their employment prospects. In 2016,103 young women completed courses and 85 percent were given job recommendations. Some 72 percent were hired during the first three months after the completion of the course and their incomes increased by nearly three times of what they previously earned.
- Teachers Learning Code -- AT&T recently partnered with Canada Learning Code (formerly Ladies Learning Code) to support its Teachers Learning Code program. The program is designed for primary and middle school teachers with little or no coding experience to enable them to teach coding fundamentals to their students. Various learning experiences, such as workshops and meetups, provide educators with guides, training, and lesson planning tools to help them introduce code and computational thinking to their students. AT&T also supports a number of other organizations that help underserved students develop computer science and coding skills, including Girls Who Code and Code.org.

- Udacity -- AT&T is working with Udacity to expand the Nanodegree program, which
  offers new educational online pathways to industry-relevant skills, to prepare more
  people with the skills needed for high-demand tech jobs requiring technological
  expertise. There are now more than 30,000 learners internationally taking
  Nanodegree courses.
- Developers' Day -- In a further effort to drive skills development and entrepreneurship, quite a few USCIB members, which range from AT&T, Facebook, Google, Microsoft, and Oracle to non-ICT industry leaders, such as Proctor & Gamble, actively support Developers' Day events- or hackathons. Designed as catalysts for innovation and entrepreneurship, the application development contests provide attendees with the resources, education, and networking structure needed to produce mobile apps and other solutions. Prizes often include financial awards that can be used as seed money to further develop a team's respective project, mentoring, nanodegree scholarships, internships and other opportunities aimed to advance skills development. Beyond the United States., USCIB members have produced hackathons in countries throughout the world, including Australia, the Czech Republic, India, Malaysia, Mexico, the Netherlands, the Philippines, Singapore, and Spain.
- Escuela+ -- Recognizing the importance of access to education, the AT&T/DIRECTV Escuela+ program uses satellite technology and video to deliver educationally enriching content in ways that help students thrive. The project demonstrates how satellite connectivity and new concepts in content delivery can address education inclusion goals, especially in rural areas. The program has transformed classrooms in 8,500 schools in eight Latin American countries.
- O AT&T Aspire -- Through the AT&T Aspire initiative, AT&T helps provide access to education and training people need to get and keep good jobs. Since 2008, the company has committed \$400 million in programs to help millions of students in all 50 states and around the world. By supporting both employees and students, the company aims to create opportunities for people to move in to more rewarding careers. The supported programs prepare people for careers in technology, media, and telecommunications, and increase the number of students graduating from high school.
- o AT&T Aspire Accelerator -- In 2015, AT&T launched the AT&T Aspire Accelerator to support and mentor the most promising and innovative startups in education. Selected non-profit organizations receive financial investment, access to expert services and mentorship. AT&T has exceeded their commitment to ensuring at least 50 percent of the selected start-ups are female-led. The 19 participants from the first three classes have reached more than 10 million students. The 2017 class brings together eight companies from around the country.
- o Innovative Learning Labs and A Mobile Learning Academy Verizon Communications Inc. has pioneered several educational initiatives in the United States at its nation-wide Innovative Learning Labs and Mobile Learning Academy. The former are free, interactive labs aimed at exposing young boys and girls to new skills like coding and new technologies, such as virtual reality, robotics, and 3D printing. Each lab session lasts 50 minutes and can accommodate up to eight students. The Mobile Learning Academy enables teachers to receive technological training remotely from Johns Hopkins University. Verizon also sponsors innovative app challenges at the middle and secondary school level, at which young women, in particular, have excelled.
- Focus on Working Mothers, Diversity Verizon Communications Inc. provides extensive benefits supporting its female employees, ranging from generous

maternity leave to child care discounts, to tuition support for professional development. These women-focused employee benefits are complemented by a Diversity Council and a Global Women's Organization, which is sponsoring digital education projects in partnership with the Girl Scouts and Girl Guides organizations.

- <u>Importance of Mentoring</u> Going hand-in-hand with basic education and digital/STEM training is mentoring. For women and girls to realize their potential as participants in the digital economy, they need guidance provided by good mentors.
  - o AFCHIX -- Dorcas Muthoni, a Kenya-based entrepreneur, computer scientist and founder of OPENWORLD Ltd., a software consulting firm, has made it her mission to bring more girls into ICT-related careers. Through AFCHIX, a non-profit she founded, Ms. Muthoni has been holding workshops throughout Africa aimed at building capacity for women and girls in computer science and systems administration. Many of the AFCHIX mentees, in turn, have become so proficient that they, in turn, become AFCHIX instructors. This initiative has demonstrated the value of "playing it forward" and empowering girls and young women through positive role models.
  - o TechGirls -- AT&T, Facebook, Google, Microsoft, and Verizon, to name a few USCIB member companies, have been pleased to support TechGirls, a U.S. State Department initiative administered by Legacy International. This international exchange program for students from the Middle East and North Africa focuses on hands-on skills development in fields such as programming, mobile application building, and web design for girls between the ages of 15 and 17. As part of the program, TechGirls are matched with a private sector partner for "Job Shadow Day" during which they learn about careers in the tech field and develop increased confidence as young women pursuing technology. Following the three-week program in the United States, the TechGirls return home and give a presentation to their schools and communities about their experiences and what they learned. They then carry out a community-based project as part of transferring those skills back to their respective communities. Between June 2012 and August 2017, TechGirls has trained and mentored 162 teenage girls from Algeria, Egypt, Jordan, Lebanon, Libya, Morocco, Palestinian Territories, Tunisia, and Yemen.
  - SheMeansBusiness -- Facebook launched #SheMeansBusiness on International Women's Day 2016 in the Asia Pacific region to inspire and empower women entrepreneurs. SheMeansBusiness serves as a combination of education, networking events, and small community gatherings to share inspiring stories. Since its launch, Facebook has expanded the initiative to 17 countries, trained more than 42,000 female entrepreneurs in-person and more than 50,000 online, and the number of women-owned pages on Facebook have grown more than 60 percent year-on-year.
  - o <u>TEALS</u> Microsoft increases access to Computer Science (CS) education through innovative programs like <u>TEALS</u>, which has embedded volunteer computer science teachers in 349 schools across 29 U.S. states. Some 31 percent of students are female. Through this program, Microsoft has determined that women who tackle Advanced Placement CS in high school are 10 times more likely to study it in college and, in turn, pursue ICT careers.
  - <u>DigiGirlz</u> Microsoft's DigiGirlz has offered more than 40,000 girls the opportunity to participate in STEM educational opportunities. The program targets the 12-yearold to 18-year-old age group.

- Code.org -- Microsoft is the largest funder of the nonprofit Code.org. Code.org has engaged over 100 million students globally in Hour of Code; 44 percent of participants are female.
- #<u>makewhatsnext</u> -- Through campaigns like #<u>makewhatsnext</u>, Microsoft has sought to raise awareness and spark conversations about the gender gap and provide tools and resources to engage girls in STEM learning opportunities.
- <u>Creating a Safe Online Environment</u> Even with sufficient access to basic education and digital training, online harassment and cyber violence continue to inhibit many women and girls from become productive participants in the digital economy and applying their talents to benefit themselves and their communities. The ITU has been very active in addressing this barrier through its 2008 Child Online Protection Initiative, which has created an international collaborative network to promote online safety of children around the world. GSMA and <u>ECPAT (End Child Prostitution in Asian Tourism</u>) are partners, working with the ITU to develop guidelines for policymakers, teachers, and companies such as Facebook to ensure that the Internet is a safer space for everyone more generally, but especially for women and girls.

Importantly, as Marie-Laure Lemineur (ECPAT) highlighted in the 2016 IGF workshop, women and girls must be assured that "technology is not the enemy." Online harassment and cyber violence is caused by *human behavior*, not the technology in and of itself. Lemineur noted that technology can be used to help address some of the most egregious violations of human rights and predatory behavior through improved security-related software. Advances in digital forensics also have proven useful for law enforcement efforts to combat online predatory behavior. This message is important, and should be shared in conjunction with educational and digital skills development focused on women and girls, Ms. Lemineur urged.

Other examples of how business has aimed to create a safe online environment include:

- o Amigos Conectados- The Walt Disney Company's Amigos Contectados is a regional education and technology program that aims to promote children's online safety and positive use of technology in Latin America. The program raises the awareness of educators, parents, and children on issues of citizenship and digital literacy. The objective of Amigos Contectados is not only to promote safe and responsible use of technology and digital environments but also to encourage the development of skills that stimulate creativity and critical thinking at the hands of games and technology, while stimulating shared learning and collaborative work. Disney's regional partner for the program is Chicos.net, which is a local NGO with wide experience in developing programs around digital citizenship and literacy in Latin America. The organization leads a regional network of non-profits (Red Natic) with the same expertise and focus across main markets, which helps support local implementation.
- NetSmartz Since 2011, The Walt Disney Company has supported The National Center for Missing & Exploited Children (NCMEC) to bring Internet safety to schools, communities, and families. This partnership provides children with valuable internet safety tools. NCMEC's NetSmartz Workshop is an interactive, educational program that provides age-appropriate resources to help teach children how to be safer both online and offline. The program is designed for children ages 5-17, parents and guardians, educators, and law enforcement. It contains various resources such as videos, games, activity cards, and presentations.

- Pursuing Local Partnerships Many companies have maximized their grass-roots efforts to bring women and girls online by partnering with local non-profit organizations. These partnerships have proved very effective because local organizations have an intimate knowledge of infrastructural, economic, and socio-cultural conditions on the ground, they often enjoy access to local community leaders, and thus, are best situated to provide advice about local content that would engage women and girls. Another recurring theme in 2016 IGF workshop was that it is more compelling for a community member to introduce a woman or young girl to the online world than for a national government official or big company representative to "lecture" the intended audience.
  - <u>YouthSpark</u> Microsoft works with over 150 nonprofits in 60 countries around the world to help engage millions of young people from the kindergarten through grade 12 (high school) age groups. More than 80 percent of the people benefitting from <u>YouthSpark</u> grants are from underserved communities and more than 50 percent are female. Microsoft <u>YouthSpark</u> grantees have trained more than 200,000 teachers who will go on to teach computer science (CS) around the world.
- <u>Cross-Organizational Cooperation</u> Many different international organizations have undertaken impressive work aimed at bridging the gender digital divide. But these programs are often siloed and can be overlapping or duplicative. The benefits of these multiple efforts would be amplified if the organizations coordinated their efforts, collaborated on program execution, and pooled their resources. In this regard, it would be useful for an organization or business to develop a matrix or clearinghouse that indicates gender-bridging efforts undertaken in intergovernmental organizations (IGOs). This would better enable cooperation between and among the IGOs as well as facilitate efforts by business, civil society, and the technical community to find an appropriate IGO partner.
- Importance of Multistakeholder Input and Policy Implementation Developing policies aimed at bridging the gender digital divide is best undertaken in a bottom-up, multistakeholder manner: (1) business informs what skills are needed for women and girls to become productive participants in the digital economy; (2) civil society ensures that the solutions protect a woman's fundamental human rights; (3) the technical community advises on the technical feasibility of proposed solutions and may also provide technical training; and (4) governments implement the proposed policy and/or regulatory solutions.

It is in the latter area that some governments – even those with good economic policies and healthy economic activity – often fall short. Nancy Hafkin (Women in Global Science and Technology), a noted authority on promoting gender quality in Africa, was a featured speaker in USCIB's 2016 IGF workshop. As an example of weak implementation follow through, she pointed out that for the past eight-to-ten years, the Ethiopian economy has grown significantly and the government has embraced policies guaranteeing equal rights for women and promoting gender diversity in the ICT sector. Nevertheless, religious groups and customs have thwarted the attainment of gender quality objectives. According to Hafkin, careful monitoring and evaluation to determine gaps in implementation is critical. It is not enough for a government to say it has enacted certain policies; there must be effective follow-through. In essence, there must be marriage of bottom-up multistakeholder-informed guidance to policy development, linked to top-down governmental implementation of the solutions.

### Sources and Mechanisms to Measure Participation of Women in the Digital Economy

The uniform consensus of participants in the 2016 IGF workshop was that there is insufficient, reliable, consistent and gender-disaggregated data on the participation of women and girls in the online ecosystem to help all stakeholders identify gaps.

Of the meager sources available, the Global Entrepreneurship Monitor (GEM) project includes data on "adult" entrepreneurial activities (ages 18-64 years) across 65 world economies. In addition, Women in Global Science and Technology conducts National Assessments on Gender and STI (Science, Technology, and Innovation), which offer cross-national comparisons of the status of women in national knowledge economies. Finally, GSMA's Connected Women Initiative continually strives to update data and provide better metrics to identify the participation of women and girls in online ecosystem.

# **Fostering Women Entrepreneurs in SMEs in Developing Countries**

Entrepreneurship offers women a sense of empowerment, both professionally and financially. However, only about one-third of SMEs in the world are owned by women. As Noelle Francesca de Guzman (Internet Society) noted in the 2016 IGF Workshop, many of these women entrepreneurs are involved in microenterprises in the "informal" sector that rarely move beyond the subsistence stage.

- W2E2 -- Wireless Women for Entrepreneurship and Empowerment (W2E2), which is part of the Internet Society's broader Wireless for Communities initiative, focuses on creating ICT-based micro-level social enterprises owned and managed by women. A key feature, according to de Guzman, is not only teaching women how to connect to the Internet, but also providing them with digital skills needed to build sustainable, "well-above subsistence" businesses. Such skills include learning how to create and use online spreadsheets, how to access credit, and how to continue to build skills sets through online training. Equally important, the successful W2E2 entrepreneurs are not necessarily in the ICT sector. Ms. de Guzman shared the example of a woman farmer who, through W2E2 programs, learned how to access information online about organic farming. She has since been able to transition to the production of higher value, organic products. As de Guzman acknowledged, infrastructural investment and connectivity is important. But the success of the W2E2 initiative in India, for example, hinged on introducing women to how they can use technology to break down gender-based barriers to education, digital skills, and financing to create their own enterprises.
- PEACE THROUGH BUSINESS -- In 2006, the Institute for Economic Empowerment of Women (IEEW) created PEACE THROUGH BUSINESS®, a business training and mentorship program for female entrepreneurs in Afghanistan and Rwanda. The program focuses on education and promotion of business and leadership skills among women to help build stable democracies. AT&T has been a supporter of PEACE THROUGH BUSINESS® since its inception, as it embodies many issues that are important to the company, most notably gender equality and the empowerment of women in business. 2017 marked the 11th year of the PEACE THROUGH BUSINESS® Program. To date, over 650 female business owners from Rwanda and Afghanistan have graduated from the program and have created more than 13,500 jobs.

To summarize, fostering women entrepreneurs in developing country SMEs – much like the overarching challenge of bridging the gender digital divide – requires a holistic mix of policies such as:

- Improved basic education;
- Investment in broadband and electricity infrastructure;
- Training in entrepreneurial skills (basic accounting, use of spreadsheets, dealing with suppliers, transporting goods to market, either online or physical);
- Training in basic digital skills; and
- Access to credit or special gender-based financial incentives.

# Gaps in Addressing Challenges and the Role of Governments - The Role of Culture

There is a tendency for some governments to become overly focused on addressing technological aspects of bringing more of their populations online and the need to produce more computer scientists. Yet, the countries where gender barriers to participation in the digital economy are most acute are primarily least-developed countries where women must contend with a host of *basic, non-technological* challenges. These include inadequate access to medical treatment for such serious diseases as tuberculosis and AIDS, low educational levels (primary education or less) and, related to this, an inability to speak and read international languages. Often, fundamental services such as the availability of electricity and telecommunications connectivity are lacking, compounding the already formidable barriers faced by many women.

As discussed above, an equally difficult barrier to transcend involves culture. Many women in developing countries live in a patriarchal society, where concepts such as "men first", "women to be guarded" are embedded in local laws. As a consequence, woman immersed in such cultures often do not possess a strong voice in public affairs, are limited in their educational aspirations, face grossly unequal pay, have little or no leisure time to acquire digital awareness and basic skills, and must contend with a lack of gender awareness in the science and technology disciplines.

This may be the most difficult gap to be addressed by all stakeholders. There is a need to re-frame the conversation in a way that transcends cultural mores and does not appear threatening to either women or men. This re-framing can begin at international forums devoted to engagement and dialogue on Internet issues, such as the Internet Governance Forum (IGF). Such "high-level" discussions, must then be complemented by on-the-ground initiatives between ICT stakeholders and local organizations that are sensitive to cultural issues. Female role models and mentors also can help to inform and enlighten about how use of the Internet can improve the quality of one's life in terms of greater access to health care, income-generating opportunities, and education. But cultural change does not happen overnight, which means that the challenge of bridging the gender digital divide will require the patient, but unwavering attention of all stakeholders.

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