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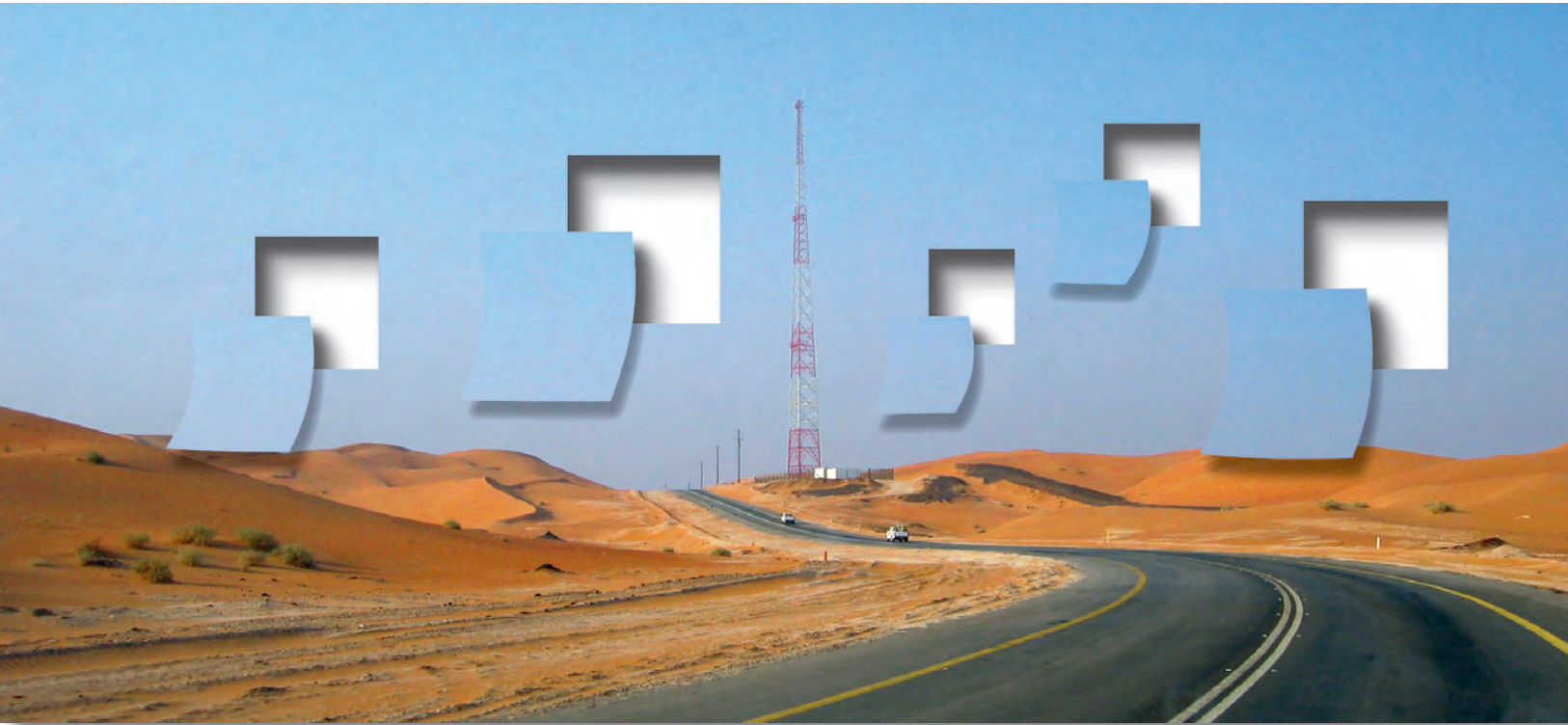
## ***Women Leading the way***



Special edition | International Girls in ICT Day



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# ■ Celebrating Girls in ICT Day 2013 in Brussels and in Geneva

**Dr Hamadoun I. Touré,  
ITU Secretary-General**



ITU/P.M. Viot

*Congratulations to all our members celebrating Girls in ICT Day on 25 April 2013. Last year, more than 1300 events were organized in 90 countries around the world — and my guess is that we will beat that record this year.*

Such events play an important role in convincing girls that heading into science, technology, engineering and mathematics (STEM) careers isn't dull, geeky or nerdy, but a smart career move with excellent prospects.

On Girls in ICT Day this year, I will be attending a number of inter-related special events in Brussels, and ITU will be holding its own event in Geneva.

## Parliamentary Hearing on Women in ICT

In Brussels, the European Parliament, the European Commission and ITU are joining forces to celebrate Girls in ICT Day 2013. I will have the honour of addressing the Parliamentary Hearing on Women in ICT, along with Neelie Kroes, Vice President of the European Commission, and one of our Broadband Commissioners.

We are all aware of the power of ICT in every aspect of our lives. For example, women's access to health care and education has expanded enormously through ICT. We can deliver basic education in areas such as literacy, entrepreneurship and e-agriculture — and given that

women do most of the world's work, this offers enormous potential for improving the lives of all the world's people.

## Attracting girls to technology

To benefit from ICT, women need to be digitally literate, and Girls in ICT Day is a powerful platform for raising awareness of this need. I am proud to report that ITU's long-standing partnership with the Telecentre.org Foundation is on track to train one million women in basic ICT skills — and already by March 2013 we were past the two-thirds mark, with 680 000 women from 147 organizations trained in 85 countries.

In a world where more than 95 per cent of all jobs now have a digital component, and where there is a large and growing skills shortage in the ICT sector, we need to get more girls involved in STEM, and we need to get more girls taking an interest in ICT careers.

There are still only 21 of the Fortune 500 companies — and only 42 of the Fortune 1000 companies — run by women. We have far to go before we achieve parity.

This also remains true for ITU; it was 1932 before we had our first woman delegate at a major conference, and 1965 — our centenary year — before we had a female head of delegation.

But I am an optimist, and I am convinced that the hundreds of events taking place on Girls in ICT Day this year will make a real difference by encouraging more girls to study technical subjects and pursue careers in technology.

I am pleased that the Broadband Commission for Digital Development — which was created three years ago by ITU and UNESCO — has set up a Working Group on Broadband and Gender, in answer to a direct appeal from Geena Davis, to harness the power of broadband to empower women and girls.

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### **Tech Needs Girls Awards and networking lunch**

Also in Brussels, as part of the Girls in ICT Day celebrations, I will be presenting the Tech Needs Girls Awards. Companies such as Cisco and Intel have made these awards

possible, and have demonstrated their outstanding commitment to seeing women and girls take up ICT careers and pursue technological excellence.

We launched the Tech Needs Girls campaign just over a year ago and the response has been amazing. We have heard from women who recognize the importance of the core messages surrounding the campaign, and from girls who had no idea how dynamic, creative, flexible — and indeed helpful and valuable to the community — a career in ICT could be.

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### **Women2020 breakfast and food for thought**

I will also be attending a breakfast meeting in Brussels organized by Women2020. This will be an opportunity to discuss ways of promoting women-led innovation and enterprise, and women entrepreneurs in Europe.

Given the consistent projections that there will be an ongoing shortage of qualified workers in the ICT sector, this represents a tremendous

opportunity for women, not only to help solve the talent shortage, but also to be empowered by new career opportunities in a sector that promises excellent employment prospects.

At ITU we are looking at ways of increasing the number of women pursuing careers in ICT, as well as at ways of leveraging ICT themselves to increase the social and economic empowerment of women and girls.

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### **ICT Discovery at ITU headquarters**

In Geneva, we ourselves will host an event for Girls in ICT Day at ITU's new museum, the ICT Discovery. Girls from local schools will be welcomed to ICT Discovery and will attend coding, app and web-design workshops. They will also have the opportunity to meet female ICT professionals and hear their stories.

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## Geena Davis

Academy Award winner, Geena Davis, is one of Hollywood's most respected actors, appearing in several roles that became cultural landmarks. In 1989, Davis received the Academy Award for Best Supporting Actress in "The Accidental Tourist" and won the 2006 Golden Globe Award for Best Performance by an Actress in a Television Series — Drama. Davis broke ground in her portrayal of the first female President of the United States in ABC's hit show "Commander in Chief."

A long-time advocate for women, Davis is becoming recognized for her tireless efforts on behalf of girls nearly as much as for her acting accomplishments. She is the founder of the non-profit The Geena Davis Institute on Gender in Media and its programming arm See Jane, which engages film and television creators to dramatically increase the percentages of female characters — and reduce gender stereotyping — in media made for children 11 and under.

Davis was recently appointed Special Envoy for Women and Girls in ICT for the UN's International Telecommunication Union (ITU). Davis is also an official partner of UN Women, working toward their goal of promoting gender equality and empowering women worldwide. Davis is the Chair of the California Commission on the Status of Women.

Davis holds honorary degrees from Boston University, Bates College and New England College.



## ■ **Message from Geena Davis**

### **ITU Special Envoy for Women and Girls in ICT**



As the ITU Special Envoy for Women and Girls in ICT, I am thrilled to be greeting all the girls around the world, as we celebrate International Girls in ICT Day on 25 April 2013.

Technology is offering large-scale opportunities to empower women and girls, creating a systemic cultural shift by improving how they're portrayed and represented. These are the tools that will ultimately allow women and girls to reach their full potential.

My awareness of gender imbalance in the media came when I started watching children's television, videos and movies with my then two-year old daughter, Alizeh. I was stunned to see that there seemed to be far more male characters than female characters in these entertainments that were aimed at the youngest of children.

As a result, I launched the Geena Davis Institute on Gender in Media and its programming arm called See Jane. We sponsored the largest body of research ever done on gender images in media. The results are stunning: in American family films there is only one female for every three male characters. In group scenes, only 17 per cent of the characters are female. There was no improvement in those numbers over the last 20 years we studied.

Our research also shows that females are missing from critical occupational sectors in entertainment media.

We recently completed a study on the careers of female characters in popular United States television and film, and found that with regard to STEM\* careers, in family films, males hold 84 per cent of all STEM jobs. This calculates into a ratio of 5 male STEM characters to every one female STEM character.

No female leads or co-leads are shown with STEM careers.

Looking across the categories of computer science and engineering, the ratio of males to females in these arenas is 14.25 to one! And in television, characters with STEM jobs are 79 per cent male and 21 per cent female.

I am happy to say that positive role models exist off-screen. Some tech companies, including Hewlett Packard, IBM, Xerox and Yahoo, are headed by women. But there are just 21 female CEOs leading Fortune 500 companies. It is time to change this imbalance.

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\* Science, technology, engineering and mathematics.

New and future technologies, especially broadband will be key to providing women with the means to educate themselves and their children, improve their own health and the health of their families and communities, start their own businesses, keep themselves safe, and innovate to build and shape the future they want.

ITU is focusing on increasing the number of girls and women who want an ICT career; increasing the number of girls and women who receive an education in science, technology, engineering or mathematics; and encouraging ICT businesses to attract, recruit, retain and promote women to achieve long-term sustainability.

Last September, I participated in the Broadband Commission for Digital Development and was very pleased that these leaders are committed to empowering women and girls as part of the digital revolution and agreed to set up a working group on gender.

A major outcome from a meeting on 17 March 2013 in Mexico City is that the Broadband Commission agreed on an ambitious new target designed to spur female access to the power of ICT. The target mandates no less than “gender equality in broadband access by the year 2020”.

*“ As the ITU Special Envoy for Women and Girls in ICT, I am thrilled to be greeting all the girls around the world, as we celebrate International Girls in ICT Day on 25 April 2013. ”*

Geena Davis

Last October, as Special Envoy, I attended the Women with the Wave: High-Level Forum on Digital Inclusion of Women and Girls, in Seoul in the Republic of Korea. The Asian broadcasters, filmmakers, Internet stakeholders, academics and others demonstrated their commitment to lead the change in the images of women and girls in ICT. From Korea’s famous K-dramas to Bollywood musicals, they are looking for the characters that will inspire tomorrow’s technology-centred professionals.

We have the opportunity to ensure that women and girls are fully included in the expansion of the digital world, and that their voice and presence are shaping the United Nations development agenda and strategies beyond the 2015 Millennium Development Goals.

Let us all join hands to achieve the new gender target from the Broadband Commission. I urge all Member States and global CEOs to fully implement the principles in Resolution 70 (Rev. Guadalajara 2010) on “gender mainstreaming in ITU and promotion of gender equality and the empowerment of women through information and communication technologies”.

Everyone participating today is a change agent, and the media and technology sectors will come together and take a leadership role to promote more positive portrayal of women and girls in the media — starting, if I may, with some inspiring tech-savvy role models in film and television. Because changing perceptions will be the real game changer in achieving greater empowerment and participation of girls and women in the technology sector.

## ***Sister Republics: Building Bridges — Committing to a Stronger Economy with Women's Leadership***

*In 2013, the United States Embassy in Bern is hosting its third annual bilateral Women's Conference "Sister Republics: Building Bridges — Committing to a Stronger Economy with Women's Leadership". The participants are leading Swiss and American women in business and politics including opinion leaders such as Swiss Federal Councillor Simonetta Sommaruga, Former Obama for America and White House Communications Director Anita Dunn, and Geena Davis, who founded Gender in Media, a project that looks at how the media portrays women and girls. Media and cultural influences are considered a factor in a stubborn glass ceiling in both countries.*

*"The number one recommendation from our last bilateral conference last year was to get the message out that this lack of diversity at the top of our companies is hurting our economies," said United States Ambassador Donald S. Beyer. A recent study by Credit Suisse echoes results from a raft of studies in the United States showing the more women on boards and in executive suites, the more profit companies make. The 2013 conference is dedicated to making the business case for more women leadership.*

*A George Washington University study titled Diversity Dividends: Advancing Women in Business Leadership provides the basis for the conference discussions. The report explores new tools, coalitions and market influences that can accelerate market adoption of women in leadership. Many solutions involve changes in the workplace that would address the problems of work/life family balance including flexible work schedules, part time work arrangements, child care, and leave policies.*





Meeting of the Broadband Commission's Working Group on Broadband and Gender, 16 March 2013, Mexico City

## Broadband Commission's gender agenda

*Meeting on 16 March 2013 in Mexico City, the Broadband Commission's Working Group on Broadband and Gender proposed a new target for the Broadband Commission to help end the gender divide in technology. The target is uncompromising, calling for "gender equality in access to broadband by 2020". As reported in the March 2013 issue of ITU News, this target was endorsed by the Broadband Commission for Digital Development during its seventh meeting, hosted by the Commission's co-Chair Carlos Slim Helú.*

### Gender divide in broadband access and use

"We have to make a difference in bridging the broadband divide", said ITU Secretary-General and Broadband Commission co-Vice-Chair Dr Hamadoun I. Touré, encouraged to see that so many Commissioners supported the Working Group.

Brahima Sanou, Director of ITU's Telecommunication Development Bureau suggested that the Working Group might advocate the inclusion of gender in broadband policies, as well as in national plans. Possible steps might include encouraging women to get online, encouraging businesses to recruit women, increasing training for women, and monitoring the gender gap in the information and communication technology (ICT) sector. "We need to empower women through broadband," underlined Mr Sanou.

As Helen Clark, Administrator of the United Nations Development Programme (UNDP) and Chair of the Working Group,

pointed out during the meeting in Mexico, gender inequality is one of the ceilings that hinder countries from moving forward. By failing to ensure that women share the benefits of ICT use and access, countries are failing to take advantage of around half their population. ICT give access to vital services, facilitate participation and engagement in the public sphere, help empower women economically, and help give them voice. However, these challenges are not singularly about infrastructure; many women around the world face a range of challenges (exclusion, unequal access to education and ICT skills, etc.) that need to be addressed. "The deployment of ICT needs to be linked to the real challenges on the ground. We need roll-out, but we need roll-out with equity", said Ms Clark.

There is a commitment to advance gender equality, but the offline reality of discriminatory practices and constraints that women face daily are reflected online, noted Gülden Türköz-Cosslett, Director of UN Women's Programme Support, observing

that "Women were so instrumental in the online revolution of the Arab Spring, but they have been left out of the political consequences."

At the first teleconference of the Working Group on 29 January 2013, chaired on behalf of Helen Clark by Geraldine Fraser-Moleketi, Director of the Democratic Governance Group at UNDP, the Group agreed on the following, for further deliberation in its face-to-face meeting in Mexico:

- The creation of a community of practice where practitioners can work together to share knowledge and expertise, a quick mapping of efforts under way to identify best practices and lessons learned.
- The creation of an interactive dashboard to capture information from the mapping.
- The development of a report for policy-makers and experts, providing innovative approaches on integration of ICT into development and gender efforts. The report will also use innovative tools for dissemination.

## Quantifying the problem

In developing countries, women are 25 per cent less likely to be online than men, reported John Davies, Vice-President of the Intel World Ahead Program. Based on Intel's analysis, the gender gap is 43 per cent in sub-Saharan Africa, compared with just 10 per cent in Latin America and the Caribbean. Connecting women could yield between USD 13 billion and USD 18 billion in additional gross domestic product (GDP).

Doreen Bogdan-Martin, Chief of ITU's Strategic Planning and Membership Department, said that globally, 16 per cent fewer women than men are using the Internet. Only 29 per cent of national broadband plans mention gender. ITU is active in publishing gender-disaggregated ICT indicators, in removing gender barriers to ICT education (for example, through its partnership with the Telecentre.org Foundation and in increasing the number of women in the ICT sector).

According to GSMA, a significant mobile gender gap exists, with women 21 per cent less likely to own a phone than men globally. Barriers to female access include cost and affordability, technical literacy, lack of awareness, and perceptions.

Elaine Weidman, Ericsson's Vice President of Sustainability and Corporate Responsibility, noted that the 80 to 20 male to female ratio for telecommunication employees working in the ICT sector has persisted for years.

Nancy Hafkin, Senior Associate at Women in Global Science and Technology, stressed the importance of data, quoting previous work by UNDP: "Without data, there is no visibility — and without visibility, there is no inclusion". We need to know how many women have broadband, and what are they using broadband for?" she asked, suggesting that involving more entrepreneurial women in the Commission's work would increase the flow of ideas.

## Successful initiatives

Various successful examples of what works were cited, including a project by UN Women in Ecuador to train women to use e-government services to obtain better sanitation and health care. The positive impact of ICT on maternal health has been demonstrated in Uganda, where women are successfully using ICT to access health information. In Kenya, m-banking opens up new opportunities for female entrepreneurs.

Jasna Matić, Special Adviser for Competitiveness and Knowledge Economy in Serbia's Ministry of Finance and Economy, noted that girls across the globe use ICT for economic empowerment, education, health care and access to justice.

Anne Bouverot, Director General of GSMA, described projects such as GSMA's mWomen Programme that could change the lives of millions of women in low- and middle-income markets by facilitating their access to mobile products and services.

Magdalena Gaj, President of Poland's Office of Electronic Communications, described Poland's voluntary Lighthouse Keepers project. These Lighthouse Keepers are digital champions who provide adults with the skills needed to participate in the





digital world. There is at least one Lighthouse Keeper in every local community, and the project has trained 2640 Lighthouse Keepers and 24 000 adults to date.

Miguel Raimilla, Executive Director of the Telecentre.org Foundation, presented the work the Foundation is doing in collaboration with ITU and other partners. By March 2013, basic training had been provided to nearly 680 000 women.

Another successful platform that was highlighted is SmartWoman, developed by ChangeCorp — a social enterprise based in the United States. SmartWoman is a membership-driven social network which helps enable and empower women in other countries by sharing information about careers, life skills and parenting. “Phase 2 foresees the sales and purchase of goods made by other women”, said Louise Guido, CEO of ChangeCorp.

## What next?

Kathy Calvin, President and Chief Executive Officer of the United Nations Foundation, said that the Broadband Commission could play an important policy advocacy role and suggested that it should present recommendations to the High-Level Panel on Post-2015, the Group of 77 and the United Nations Secretary-General.

“Gender needs to be mainstreamed into the Millennium Development Goals and their successors”, said A. Reza Jafari, Chairman and CEO of e-Development International and co-Vice Chair of the Working Group on Broadband and Gender, stressing that it is time to move on from pilot projects and to scale up initiatives.

According to Irina Bokova, Director-General of the United Nations Educational, Scientific and Cultural Organization (UNESCO), we need to see women and girls as creators of technology, as well as consumers.

Ann Mei Chang, Senior Advisor for Women and Technology in the United States State Department, stressed the importance of



referencing gender in the Broadband Commission's work. "Having an explicit target would signal that gender matters", she stated.

Women are coming up with innovative entrepreneurial solutions to help other women, according to Sonia Jorge, Research and Consulting Director at Pyramid Research. "Not many broadband plans currently integrate gender — we should support the development of policies and strategies to integrate gender. We need advocates and specialists to turn policy into practical projects," she said.

Helen Clark, Administrator of UNDP, noted the need to get equal gender opportunity into policy, supplementing efforts by companies and CEOs. "Experience sharing and gender analysis are extremely important — and the question arises whether we should make gender an explicit target or make gender part of each of the Broadband Commission targets. Access is the starting point, not the end-point, while technology is never gender-neutral", she emphasized.

Axel Leblois, President and Executive Director at G3ict, recalled the need to consider women with disabilities, who account for half a billion people living in the most extreme poverty.

## Working Group mandate

At its seventh meeting in Mexico, the Commission endorsed all proposals presented by the Working Group:

- To create a community of practice where practitioners, experts and stakeholders can share knowledge and expertise, promote best practices and innovation, and focus on scaling up and replicating efforts across other countries and regions. This will involve a mapping of relevant efforts, and the development of an interactive dashboard that will capture all information. This community of practice will also identify critical issues, and can be a powerful global network of stakeholders to promote gender equality. It will reach out to successful women in the ICT domain, especially from developing countries.
- To develop a report that will help policy-makers to effectively integrate ICT in their development and gender equality portfolios. The report will provide policy tools, examples of successful initiatives, and benchmark indicators to measure progress.
- To set new target for the Broadband Commission, calling for gender equality in access to broadband by 2020. It further proposed that all the Commission's reporting and indicators should consider the gender dimension.
- To extend the membership of the Working Group to successful entrepreneurial women in developing countries. To create a powerful local network to ensure gender markers and involve policy-makers and gender partners.

Dr Jafari, Cisco, Ericsson, Huawei, Intel, Microsoft, the United States State Department and the United Nations Foundation, all pledged their strong support to achieve the outcomes of the Working Group, among others.

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*This article is adapted from the Summary Record of the Meeting of the Commission's Working Group on Broadband and Gender.*



Carlos Slim Helú



Dr Hamadoun I. Touré



Brahima Sanou



A. Reza Jafari



Irina Bokova



Helen Clark



Jasna Matić



Dr Hessa Al-Jaber



John Davies



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Geraldine Fraser-Moleketi



Kathy Calvin



Anne Bouverot



Louise Guido



Magdalena Gaj



Ann Mei Chang



Miguel Raimilla



Sonia Jorge



Gülden Türköz-Cosslett



Nancy Hafkin



## ■ GSMA mWomen

### *Creating socio-economic benefit for women through mobile*

*By Anne Bouverot, Director General, GSMA*



On the occasion of International Girls in ICT Day, GSMA celebrates global efforts to support girls and women as future leaders in the information and communication technology (ICT) industry. Our GSMA Connected Women initiative, which provides networking and mentoring opportunities for women in the mobile industry, reflects our commitment to enabling women's success and leadership in a historically male-dominated industry.

Beyond these efforts to ensure an inclusive industry, GSMA also aims to put women at the centre of economic development, job creation and other life-changing benefits available from mobile phone usage. To facilitate access to mobile products and services that could change the lives of millions of women in low- and middle-income markets, GSMA has developed the GSMA mWomen Programme.

### **Bridging the mobile phone gender gap**

GSMA launched the mWomen Programme in October 2010, with the support of former United States Secretary of State Hillary Rodham Clinton, following the release of our report, *Women and Mobile: A Global Opportunity*. This study, by GSMA and the Cherie Blair Foundation for Women, was the first to identify the magnitude and causes of a mobile phone gender gap in low- to middle-income countries. The study estimated that women in these markets were 21 per cent less likely than men to own a mobile phone, resulting in a gender gap of 300 million women and representing a USD 13 billion missed market opportunity for the mobile industry.

The study identified the key barriers to women's mobile access, including cost, culture, technical illiteracy and perceptions of value. It also demonstrated some of the ways in which women benefit from mobile ownership. For example, 93 per cent of women surveyed reported feeling safer, 85 per cent reported feeling more

independent and 41 per cent reported greater access to income-generating opportunities, thanks to a mobile phone. Prompted by these findings, GSMA undertook a series of projects, culminating in the GSMA mWomen Global Development Alliance, financed and implemented in partnership with the United States Agency for International Development, the Australian Agency for International Development, and Visa Inc.

The GSMA mWomen Programme's objective is to reduce by half the mobile gender gap by encouraging mobile operators to serve women, increasing the availability of life-enhancing, value-added services for women and promoting solutions to address barriers to adoption. The programme is focused on identifying business models that can serve women on a sustained basis at scale, by providing support and insights to spur action on the part of mobile operators, value-added service providers and other mobile industry members, as well as non-governmental organizations and other international development partners.



## Mobile products and services designed for women

We've begun to see some examples of how operators are gaining deeper understanding of the needs of women as consumers in their markets, and achieving commercial and social success as a result. In 2011, for example, Iraqi operator Asiacell saw that women made up only 20 per cent of its subscriber base. After conducting consumer research to understand the needs of women, the company launched the Almas line of products. This line matches the needs of Iraqi women for mobile services by offering features such as: "step charging", with a 50 per-cent discount after the third minute; freedom for women to choose their own off-peak hours; discounted rates for off-network calls; and a free "bye-bye" service that blocks potential harassers from calling or texting. Since the launch of the product in April 2011, female customers now account for close to 40 per cent of Asiacell's customer base and about 1.8 million women in Iraq have been connected to friends and family, becoming more socially and financially independent, thanks to their access to mobile technology. In February 2013, Almas was awarded the Global Mobile Award for "Best Mobile Product or Service for Women in Emerging Markets" at the GSMA Mobile World Congress in Barcelona.

Another example is Indonesia's Indosat. To differentiate its offering in a competitive marketplace, Indosat acted on the findings of its in-house and external market research to create a mobile product specifically targeting the wants and needs of women homemakers. The resulting Hebat Keluarga service aims to help housewives better manage their households and stay in touch with their families. The plan includes an affordable friends-and-family tariff, a "family-finder" application to track the geographical location of family members, and an extended SIM card validity period. Since its launch in July 2011, Indosat's female customer base has increased by nearly two million women customers.

An example of a sustainable ecosystem partnership to serve women is illustrated by the 2012 Global Mobile Award winner, the Etisalat Mobile Baby service, developed in partnership by



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Etisalat, Qualcomm, D-Tree International and Great Connection Inc. Mobile Baby is a suite of affordable services designed to reduce instances of death resulting from pregnancy in emerging markets. The tool allows for the remote monitoring of pregnancies by ultrasound, communications between midwives and medical facilities in cases of emergencies, and education about warning signs, enabling health workers to act upon emergencies more quickly. Mobile Baby is now available across Etisalat's markets and has been tailored to include other localized health priorities such as polio eradication.

## A role for governments

While the GSMA mWomen Programme focuses primarily on identifying business models that can serve women with life-enhancing services on a sustained basis at scale, GSMA also promotes government action to create the necessary enabling environment to make this possible. Governments interested in ensuring that mobile services reach women just as they do men also have a role to play. For example, government agencies can encourage the development of value-added mobile services that benefit women in particular and are designed with their needs in mind, such as mGovernment services for economic development and mobile services to deliver cashless social payments. Strategic use of universal service funds can help to accelerate these efforts. Governments also have a role to play in collecting national-level data on women in regard to mobile ownership and use, as well as ensuring that gender issues are woven throughout ICT agendas, and that education and other social programmes consider use of technology in their design and implementation. Finally, policy-makers can consider how to promote greater mobile usage by reducing the total cost of mobile ownership for their citizens, perhaps through tax treatment of telecommunication goods and services.

## GSMA works for women

The GSMA mWomen Programme demonstrates how the collective efforts of mobile operators, non-governmental organizations, governments and other industry members can improve the lives and future prospects of millions. To learn more about the programme and to take a look at the rich repository of news, findings, tools and other resources, please visit [www.mWomen.org](http://www.mWomen.org).

GSMA is proud to be working in concert with the mobile industry as it increases its focus on the potential of women and girls, both as industry leaders and valued consumers. International Girls in ICT Day offers an excellent opportunity to celebrate our progress thus far and to renew our commitment to ensuring that mobile realizes its full potential as a driver of global economic and social gains.

# Rural broadband to transform health care in the United States

By Deborah Taylor Tate, ITU Special Envoy for Child Online Protection



*Sometimes government gets it right; even after a long, long time. That is the case with the new Healthcare Connect Fund in the United States, which is earmarking up to USD 400 million annually from the universal service fund to expand access for rural healthcare providers to robust, high-speed connectivity.*

## Telecommunications and rural health care

While the original concept of assistance to rural healthcare providers was part of the Telecom Act of 1996, for years the programme languished, basically unknown and underused. I was proud to have been part of the Federal Communications Commission (FCC) when we saw this as an impetus to continue the deployment of broadband across the rural areas of the United States, as well as to ensure that rural Americans had access to the same medical research, expertise, best practices and specialists that were being offered to urban residents.

## Mobile health care

In 2006, the Commission started to seek input from both healthcare and broadband providers regarding how cities, states or even regions might more collaboratively provide healthcare services and gain improved access to broadband. The move began to transform telemedicine into m-health (mobile health care) by using myriad devices and platforms — making it possible to provide health care no matter where patients or their doctors might be located.

At that time, I was the only Commissioner from a rural area of the United States, and I was thrilled that my colleagues from both parties unanimously agreed to establish a pilot project that would upgrade information technology

and create innovative and much-needed healthcare projects to ensure universal availability not only of broadband but also, more importantly, of access to sophisticated medical care and physician specialists. The pilot project funded up to 85 per cent of the deployment and construction costs associated with upgrading broadband to achieve faster connections, from 3 Mbit/s to 10 Mbit/s.

The National Broadband Plan, which the Commission delivered to Congress on 16 March 2010, also touted the incredible opportunities to advance rural health care (see Federal Communications Commission, Connecting America: The National Broadband Plan, available at [www.broadband.gov/download-plan/](http://www.broadband.gov/download-plan/)).





AFP/Image Source

## Cutting costs and improving services in rural areas

In August 2012, the FCC announced and showcased many of the benefits of the rural healthcare pilot project. Not only had broadband access and speeds been increased, and collaboration with the healthcare sector enhanced, but also enormous savings had been recorded in many of the pilot test areas. For example, a South Carolina consortium saved USD 18 million in Medicaid costs by using telepsychiatry, and a group of healthcare providers in the mid-west saved USD 1.2 million on electronic services for patients in intensive care units.

Following the successful pilot project phase, the FCC recently earmarked up to USD 400 million for the new permanent

Healthcare Connect Fund to help expand healthcare providers' access to high-bandwidth connections. According to the FCC, the new fund will improve access by supporting the implementation of new ideas suggested in the pilot phase, such as:

- encouraging partnerships between smaller rural healthcare providers and urban medical centres to enable remote hospitals and clinics to draw on the medical, technical and administrative resources of larger providers;
- increasing fiscal responsibility by requiring participants to contribute 35 per cent of the costs, while offering lower rates through group buying.

In response to many comments regarding the ageing population, the FCC will also launch a call for new pilot projects

— to be selected on a competitive basis — to expand broadband networks to skilled nursing facilities. Up to USD 50 million over three years will be available for these pilot projects.

## Broadband access and medical benefit

Access to broadband is absolutely essential to 21st century health care. This is not just about improving the quality of care and reducing costs; the outcome concerns saving and improving lives. The benefits include the ability to connect instantaneously with medical specialists and to have access at all times — day and night — to electronic healthcare records, as well as lowering the cost of educating, training

and validating the qualifications of health-care providers.

The advantages of fast broadband connections are evident. Think about the critical importance of timing in the context of remote surgery, or the need for immediate diagnosis and appropriate care for stroke victims, or telepsychiatry to individuals in remote areas who need the support of family and friends. Consider the ability to predict and prevent premature births, or to gain pertinent medical information and

information on drug allergies in the case of an accident far from home. Think about the savings that accrue from avoiding duplicate tests and from ensuring that the most effective and up-to-date medicines are prescribed. And, along with all the ways in which broadband can improve individual health care, think about the benefits of moving towards best practices in diagnosis and treatment through the sharing of disease metadata, while also enhancing the speed at which it is possible to move

from science to service, in other words from academic research to practical application, which now generally takes years.

Bringing broadband and health care together will result in exponential improvements in medical services, and shifts toward wellness and prevention, in addition to improved access to the healthcare system and faster delivery of services.

## Good public policy

As a government official, it is often difficult to fully appreciate or have the opportunity to experience the culmination of specific policy actions. In this case, however, the Healthcare Connect Fund has demonstrated that good public policy and strong government leadership can indeed, at very low cost, spur innovation and investment, resulting in a return on investment that even Wall Street would envy.

While saving time, effort and money in the healthcare arena is extremely important during this time of budget cuts and continued sluggish economy, the most important outcome is saving lives — no matter where people live.

### About Deborah Taylor Tate

*Deborah Taylor Tate, a two-time United States Presidential nominee, served as a Commissioner on the Federal Communications Commission. She was a member of the United States delegation to the World Radiocommunication Conference in 2007 in Geneva, and was a policy leader in the fields of international media, telecommunications and broadband. She was appointed Chair of the Federal-State Joint Board on Universal Service overseeing the USD 7 billion telecommunication fund and the Advanced Services (Broadband) Joint Board. Known as the "Children's Commissioner", in 2009 she received the ITU World Telecommunication and Information Society Day Award for her international work on the education and protection of children online.*

*A licensed attorney and certified mediator, Ms Tate currently serves as a Distinguished Adjunct Senior Fellow at the Free State Foundation and Minority Media Telecommunications Council in Washington DC, a Director of the Board of HealthStream, Inc., a charter member of Women Corporate Directors, Tennessee Chapter, an Adjunct Lecturer at Vanderbilt University, and Executive-in-Residence at Lipscomb University where she teaches Communications Law and Policy. Ms Tate is co-founder of Renewal House, a recovery residence for addicted women and their children. Along with Geena Davis, Ms Tate chairs the United States National Healthy Media Commission regarding the impact of media especially on girls and women. She is an ITU Special Envoy for Child Online Protection.*

## ■ **Telecentre Women: Digital Literacy Campaign**

### **Empowerment through technology**

*Contributed by Maria Teresa Camba, Director of Operations of the Telecentre.org Foundation*



*For millions of women, digital literacy is the lifeline to a new future — a lifeline which the Telecentre Women: Digital Literacy Campaign seeks to cast in all corners of the world. This global campaign is spearheaded by ITU and the Telecentre.org Foundation, the global leader for telecentres.*

The story of just one woman illustrates the empowering role of telecentres. Noura, whose name is derived from the Arabic word for light, is 27 years old and has physical disabilities. She used to spend her days in isolation, sitting in front of her house and watching people pass by. Listening to music was Noura's only solace until she started training at the Salamieh Telecentre in the Syrian Arab Republic. Soon Noura was mastering computer programming. Today, Noura is working as a trainer for International Computer Driving Licence courses at the Studies Center for Handicapped Research in Salamieh and she is a shining light for other people with disabilities. "I was lucky enough to be able to improve my chances for a future career. The courses at the Salamieh Telecentre helped me to get my job," says Noura.

### **Campaign strategy**

The Telecentre Women: Digital Literacy Campaign is a global initiative to help empower the mass of disadvantaged and underserved community women by providing training that will open up pathways to knowledge of information and communication technologies (ICT). This, in turn, will lead them to personal growth and expanded opportunities for better lives.

At the helm of the campaign is ITU's partner, Telecentre.org, a global programme that supports the establishment and sustainability of telecentres towards a vision of opening up "digital opportunities for poverty alleviation at the grassroots".

Leveraging the combined reach of the Telecentre.org Foundation's global network along with ITU's 193 Member States and 806 Sector Members, Associates and

Academia, the Telecentre Women: Digital Literacy Campaign has already reached out to more than half a million women, helping them to acquire digital literacy via telecentres and telecentre networks throughout the world; launched a global search for the top 100 Outstanding Telecentre Women Managers; stimulated and enlisted the support of more than 140 organizations (including networks of telecentres) from 86 countries; enlisted private and public sector partners, international agencies and local stakeholders to demonstrate the role of telecentres in empowering communities, in line with the standards set by the Millennium Development Goals.



## Digital Literacy Campaign target group, movers and expected results

**Global target group:** One million disadvantaged community women.

**Movers:** Telecentre women achievers, private and public sector partners, international agencies, local stakeholders, the global network of telecentres, and knowledge workers.

**Expected results:** Empowerment of community women with information access, entrepreneurship and employable digital

skills, opportunities for higher schooling, and membership of a supportive global digital community.

## Telecentre Women

The telecentre woman comes from or is linked to the grassroots. The Telecentre Women: Digital Literacy Campaign views the telecentre woman from two perspectives.

On one hand, the telecentre woman is the manager or knowledge worker who ensures telecentre services, encourages

wider use of the telecentre in the community, and maintains and generates local and external resources to contribute to the sustainability of telecentres.

On the other hand, the telecentre woman is a community woman, with or without formal education or even functional literacy, who is a telecentre user or a potential user. Even without extensive knowledge of computer operations or ICT, she uses (or has the potential to use) a telecentre to better perform her roles or expand the boundaries of her life.



An example of the latter type of telecentre woman is Nancy, who lives in Leyte, Philippines, and who had no formal schooling at all. Her life seemed to be at a dead-end when, at 38 years of age, she discovered the *Tanuan eSkwela* (eSchool Telecentre).

Throwing herself into learning to use computers and driven to pass the Alternative Learning System Accreditation and Equivalency Test offered by the government, Nancy succeeded in earning certificates of learning achievement equivalent to formal elementary and secondary education. Seeing that ICT had opened a new door for her, she enrolled her own son and two nephews in the telecentre learning courses too.

Today, with a high-school diploma in hand, things are looking up for Nancy. She is moving on to a vocational course to augment the family income. She says, "Despite my age, I was not ashamed to go to the telecentre, because there were others of my age there too. I also got to learn how to use the computer — a must in this day and age. I will not stop there. I will also take a vocational course, to help my husband, a carpenter, to provide a better future for our ten children."

## Bridging the digital literacy gap for women

Today's world runs on ICT, giving people the reach and power to achieve new levels of personal growth and the means to shape events, realize aspirations, build relationships, and create their futures in ways that were previously unimaginable.

For women especially, ICT has proven to be life-changing. It has broken traditions and social prejudices, expanded their roles in society and the home, giving many a new economic and social freedom that has redefined them as people of stature and value in their communities. Seeing ICT-empowered mothers and disadvantaged women actively participating in the knowledge economy demonstrates the life-altering power of technology and shows what ICT could offer many other women.

But too many women remain disconnected from the global technological revolution, especially so in developing countries where only 20 per cent of women are online, according to Intel's *Women and the Web* report. These women are trapped in traditional family roles, without the basic digital literacy that could help them grow and achieve more of their potential.

Basic digital literacy means more than just the ability to use a computer to communicate via e-mail or through a social network. It also means being able to use

ICT to improve women's lives in ways related to the realities of their environments and needs. For women agricultural workers, it may mean taking advantage of helpful market information to produce more and sell at better prices. For home-based women, it may mean becoming a homepreneur, and finding livelihood opportunities that increase productivity and family income.

## Impact

The Telecentre Women: Digital Literacy Campaign empowers one of the sectors of the population that is most vulnerable to poverty and its consequences — women. Bringing disadvantaged women into the mainstream of the digital revolution empowers them with access, information, choices, opportunities and options they never had before.

Digital literacy increases the value of the telecentre woman to her family and community, whether in Africa, the Arab States, Asia-Pacific, the Americas, the Commonwealth of Independent States or Europe. She will become more employable, and be able to contribute more, as well as being an asset to any enterprise. Promoting digital literacy provides a significant impetus to the global crusade against poverty.

## ■ Women's digital literacy in Oman

*Contributed by Seema AlKabi, Team Leader of the Community IT Training programme*



*The Women's Community Knowledge Centre programme is one of the initiatives through which Oman's Information Technology Authority is promoting the digital inclusion of women. The centres provide a venue for increasing computer literacy and awareness of information technology (IT) by maintaining lifelong learning within the community. Engaging women in this initiative will contribute to improving their position in the IT field and to bridging the digital divide.*

### Attracting adult women

The objective of the Women's Community Knowledge Centre programme is to train Omani women and girls in basic IT skills as a way of preparing them to participate fully in the knowledge society, with access to e-government services, and to employment and business opportunities.

One of the biggest challenges that we faced when establishing the Women's Community Knowledge Centre programme was to attract adult women to enroll in the centres. To overcome this challenge, we carried out an intensive awareness-raising campaign targeting all Omani citizens. The aim was to build awareness of the programme among the general public in order to bring more people into the centres.

The campaign activities included distributing leaflets door-to-door in almost all the regions of the country, advertising regularly on radio and in newspapers and other publications, sending mobile text messages to almost 25 000 individuals throughout the country, posting website banners, and undertaking promotional activities at targeted local and international events. The campaign resulted in a significant increase in the number of individuals using the centres.

### Building partnerships and exchanging experiences

The Women's Community Knowledge Centre initiative is widely recognized. We have hosted information and communication technology (ICT) experts from ten different countries, as well as a delegation from the Gyeonggi Women's Development Center in the Republic of Korea. The visits involved sharing experiences. This generated more ideas and opened up channels of discussion on capacity building and community development between local and international organizations.

The Women's Community Knowledge Centre has also become a partner of the Telecentre Women: Digital Literacy Campaign. This global initiative of ITU and the Telecentre.org Foundation aims to



empower underserved community women with knowledge of ICT to bring about their personal growth and expand their opportunities for better lives.

### **Growing network of lively centres**

Since the Women's Community Knowledge Centre programme was launched in 2011, a total of nine centres have opened in different regions and wilayat (districts). These centres are equipped with computers and other modern peripherals that not only allow access to the Internet, but also to some specially designed educational programmes.

Today, the centres are buzzing. More than 5000 women have been trained in digital literacy. Homemakers are now able to communicate online with schools through the Education Portal to check on their children's progress. They know how to monitor their children's use of the Internet, and they can communicate with their families and friends using social media. Women can also become technopreneurs from the comfort of their own homes.

Samira, a dressmaker who works at home, has successfully completed a digital literacy course. As she says "Now I can surf websites on women's fashion design, and new trends in materials and colours of clothes. This is my favourite area of the dressmaking business. Thanks to the training, I am able to work with computer programs such as Word and Excel."

### **Outreach and training**

Oman's Information Technology Authority has worked to build and enhance the IT capacity of the community in general through various initiatives and programmes. To date, more than 40 000 citizens have been trained in digital literacy, 70 per cent of those trained being women from remote regions.

The trainees were trained by qualified trainers whose skills have been upgraded through a specially developed train-the-trainers programme and a digital literacy course.

### **IT readiness in Oman**

The success of the Women's Community Knowledge Centre and other initiatives under the Community IT Training initiative was showcased at the Knowledge Network and Multi Sector Partnership Symposium held in September 2012. The symposium provided a great opportunity for the participating experts from around the globe to share their experiences and describe best practice. The case studies they presented showed how different countries are setting up telecentres as public places where people can access computers, the Internet and other digital technologies.

In Oman, the establishment of the Women's Community Knowledge Centre and the launching of other initiatives have boosted the level of ICT capacity building. The result has been an increase in digital literacy. The latest indicators show

a personal computer penetration rate of 54 per cent and an Internet penetration rate of more than 70 per cent. The Global Information Technology Report 2011-2012 issued by the World Economic Forum has shown a dramatic increase in the individuals readiness component, with a jump of 47 points that ranks Oman 40th globally.

### **Omani women in the knowledge society**

With the dramatic changes in technology taking place in today's society, digital literacy has become an essential skill to enable people to communicate, interact, transact and perform in a knowledge-based economy. Every segment of the community must be equipped with basic ICT skills to develop and expand their knowledge in order to compete and participate in an ever-changing world, so that no one is left behind.

To drive the development of human capital and of society in general is one of the main strategic pillars of the eOman initiative. The aim is to develop Omani ICT skills capability, and increase ICT awareness and proficiency within the government and the community. The Community IT Training initiative, which falls under this pillar, specially focuses on women and rural communities, providing them with digital literacy training and access to information in order to improve productivity, enhance quality of life, and enrich culture and tradition.



### About Seema AlKabi

*Seema AlKabi is in charge of leading, directing, managing and spearheading various IT training projects and initiatives in Oman. She is working towards empowering Omani society through IT, making sure that citizens are equipped with the necessary digital literacy skills, thereby contributing towards improving digital literacy and enhancing community development in order to bridge the digital divide.*

*Ms AlKabi is one of Oman's leading women in the area of IT knowledge and community centres. She has contributed in the development of Omani women as well as spreading IT knowledge in Omani society in general. In 2011, she was selected by the telecentre.org Foundation as one of the world's Most Outstanding Telecentre Woman Managers, and she won the Al Mar'a Excellence Award in the technology category.*

Today, Omani women are empowered to pursue their dreams and opportunities in the Sultanate, and to participate in the development process. This empowerment reflects His Majesty Sultan Qaboos bin Said's belief in the importance of the role of Omani women and their contribution to the progress of society. Omani Women's Day, which falls on 17 October each year, reflects the vision of His Majesty.

With the advent of the eOman strategy and the Sultanate's drive towards becoming a knowledge-based society, Omani women have become a latent force that will guide and shape future generations.

## ■ Interview with Julie N. Zoller

### ***First woman to chair the Radio Regulations Board***



*Julie N. Zoller is Senior Deputy Coordinator of the Office of Multilateral Affairs, Office of International Communications and Information Policy, Bureau of Economics and Business Affairs in the United States Department of State. Before this, Ms Zoller was Deputy Associate Administrator of International Spectrum in the Office of Spectrum Management, National Telecommunication and Information Administration, Department of Commerce. Ms Zoller is an elected member of the Radio Regulations Board. In 2008, she became the first woman to chair the Board. She also chaired the Board in 2011.*

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***You've said that being on ITU's Radio Regulations Board has been the highlight of your work with ITU so far. Why is that?***

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**Julie N. Zoller:** The RRB is public service at its finest — elected experts acting as custodians of an international public trust. Board members apply their collective expertise to solve the most difficult problems involving the use of the radio-frequency spectrum. In many respects, the RRB is the guardian of this precious resource. Chairing the RRB twice, and leading the preparation of the Board's report to the World Radiocommunication Conference in 2012 (WRC-12) on the stewardship of the radio-frequency spectrum and satellite orbits, have been the highlights of my work with ITU. The fact that WRC-12 endorsed the Board's work and took action on so many of the issues we raised was gratifying. Both the leadership and the stewardship aspects were fulfilling.

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***You're the only woman on the RRB. What would be different about a gender-balanced Board in terms of its work and its decisions?***

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**JNZ:** The members of the RRB are highly qualified in the field of radiocommunications with deep knowledge of the Radio Regulations and the practicalities of radio spectrum management. Members of a gender-balanced RRB would require these same qualifications. Gender is but one



important factor in creating a diverse organization. Practising inclusion and leveraging different talents and perspectives leads to better problem-solving, expanded creativity, and greater commitment to the job and the organization. A gender-balanced RRB would have these same advantages, which would be a win-win for the Union.

***What can be done to get more women onto the RRB, and more women to chair or vice-chair ITU study groups, the Council and other ITU meetings?***

**JNZ:** Few women participated in the work of ITU when I came to my first meeting in 1997. Many well-qualified women are on delegations today. They are ready to be encouraged, promoted, nominated and elected. The ITU Constitution gives due regard to the need for

equitable geographic distribution among the elected officials, members of the RRB, and seats on the Council. Geographic balance is achieved in the RRB and in the Council by a quota on the number of seats per administrative region. Is a step in this direction necessary to achieve gender equality? Perhaps, but adding value takes more than numbers. Getting more women onto the RRB and chairing study groups starts with experience and depends on nominations.



SpaceX/ChrisThompson

*ITU has never had a female elected official. What can or should be done to change that? Why is this important?*

**JNZ:** The Plenipotentiary Conference in 2006 (PP-06) considered the first female nominees to the Board, and Martine Limodin and I were elected. As the first and only female members of the Board, we are pioneers in the implementation of the gender perspective in the work of ITU — a topic that has been discussed for more than a decade. At PP-10, I was the only female candidate to the Board (and was again elected).

As Member States consider their nominations and their votes for PP-14, I hope they will make women a priority and that we will see a record number of women nominated and elected. ITU launched the three-year Tech needs Girls campaign in 2012. Could there be a more powerful message to girls considering careers in information and communication technologies (ICT) than to have women at the top of the United Nations specialized agency for ICT? Tech needs Women!

*What would you say to any women candidates seeking the chairmanship of ITU study groups or the Council, or an elected office?*

**JNZ:** I participated in the World Café on Engendering Change that ITU held during Council 2012. It was a powerful event and I was struck by the consensus surrounding the importance of gender equality. Men and women, elected officials and delegates, ITU employees and Member States agreed on the need for better gender balance. They also agreed that bringing about change presents challenges we must meet. My advice to women who wish to chair an ITU study group or be an elected official is to secure the backing of your Member State early and go for it. The climate is ripe for success. Be bold — be willing to lead, to serve, and to demonstrate that digital inclusion is truly for everyone.

## ■ Interview with Doreen Bogdan-Martin

### Gender mainstreaming and gender balance in ITU



*Doreen Bogdan-Martin is ITU's Chief of Strategic Planning and Membership Department, a post she has held since the beginning of 2008. She is the first woman to be appointed to the most senior professional level (D2) at ITU. She was previously the Head of the ITU Telecommunication Development Bureau's Regulatory and Market Environment Division. Before joining ITU, she was a Telecommunications Policy Specialist in the United States' National Telecommunication and Information Administration (NTIA). She holds a Master's degree in Communications Policy.*

**Doreen you have been appointed Chairman of the ITU Gender Task Force. What is this task force all about?**

**Doreen Bogdan-Martin:** This task force — composed of representatives (men and women) of the three ITU Sectors and all departments in the General Secretariat — is all about stepping up efforts to reduce the gender divide. The great news is that our organization represents the technologies that can break down this very divide.

A number of factors led to the creation of the task force. In April 2012, the United Nations (UN) Chief Executives Board met at ITU headquarters and endorsed a UN system-wide action plan (SWAP) on gender equality and empowerment of women. The action plan has to be implemented by all organizations, funds and programmes in the UN system. The plan lays out an accountability framework for gender equality and women's empowerment. A first reporting begins this year.

ITU had already started working in this area under Resolution 70 of the Plenipotentiary Conference (Rev. Guadalajara, 2010) on "Gender mainstreaming in ITU and promotion of gender equality and the empowerment of women through information and communication technologies". During Council 2012, we presented a progress report on ITU's implementation of this resolution. In the same report, we informed Council about the new UN system-wide action plan.



We also held a collaborative event, a “World Café” on Engendering Change, involving ITU staff and Council Member State representatives. The event generated many great ideas that helped kick-start the discussions in the Gender Task Force.

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***What is the mandate of the ITU Gender Task Force?***

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**DBM:** The mandate of the Gender Task Force is to develop an ITU gender policy. We promised the Council last year that we would report back to the 2013 session with a draft policy. The Gender Task Force has met several times, and we were greatly aided by the Office of the High Commissioner for Human Rights — two of their staff members spent an enormous amount of time with us sharing how they created a gender policy within their organization and giving us advice as to how to advance gender issues within the organization. A drafting group of the task force has held some 15 meetings, and we now have a draft ITU policy on gender equality and the empowerment of women. On 8 April 2013, the policy was presented to ITU’s Management Coordination Group, which

endorsed the spirit and overall objective of the policy. The policy will be forwarded to the Council in June 2013 for endorsement.

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***What proposals has the ITU Gender Task Force come up with to promote gender mainstreaming in ITU and to empower women?***

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**DBM:** The policy strives to make ITU a model organization for gender equality, and to leverage the power of information and communication technologies (ICT) to empower both men and women.

Specific objectives of the policy include:

- ▶ achieving gender equality within ITU;
- ▶ reducing inequalities by developing policies, programmes and projects that would enable both men and women to benefit from ICT;
- ▶ strengthening our institutional arrangements for gender mainstreaming;
- ▶ providing an accountability framework for gender equality, which will help us both to monitor internally and to report externally to the UN Chief Executives Board.

In operational terms, the policy is basically divided into three parts. The first part looks at organizational culture and staffing, including a lot of human resource matters — having flexible working arrangements and career paths, and promoting inclusive decision-making by involving women in management groups of the organization. The second part looks at programme activities, service delivery and implementation. This includes aspects of gender assessment within our programmes and activities, and encompasses showcasing good practices where ICT are used for the advancement and empowerment of women. The third part looks at governance — the Union’s commitment to gender equality, and ensuring that it is included in our strategic and budget planning.

This year we are going to launch the strategic planning process in preparation for the next Plenipotentiary Conference, to be held in 2014. So it is a golden opportunity to include gender equality in our future plans. Once the Council approves the policy, the responsibility for its implementation will rest with the Secretary-General.



*The task force has done a lot of work within just a couple of months. What are the next steps?*

**DBM:** It was a lot of work but the members of the Gender Task Force and particularly the members of the drafting group were enthusiastic about the whole process. During the many meetings there was lots of excitement and debate. We did not always agree on everything, but the end result is something that everyone is pleased with. Now the next part, which is probably even more important than the policy itself, is creating an action plan with deadlines and deliverables. Many proposals were made during the World Café and also in the Gender Task Force. The next challenge will be how to implement these proposals concretely throughout the organization once they have been put into an action plan.

*One of the new elements of Resolution 70 was the establishment of International Girls in ICT Day, celebrated annually on every fourth Thursday of April since 2011. What is ITU doing to promote this year's day?*

**DBM:** Girls in ICT Day is an annual celebration to bring global attention to the need to increase participation of women and girls in the field of information and communication technologies.

Several things are planned this year. First — like last year — we have invited all of our Member States and Sector Members to

celebrate the day and to carry out events nationally or within their companies highlighting the importance of girls in ICT. We had a tremendous uptake last year and we hope that the uptake this year will be even greater. The initiative has been championed by ITU's Telecommunication Development Bureau.

Second, ITU is organizing two events. We are doing a global event — this is a follow-on to the event held in New York last year. This year the global event is being held in Brussels, co-hosted by the European Commission and ITU. Neelie Kroes, the Vice-President of the European Commission responsible for the Digital Agenda for Europe, is passionate about this subject. She participated in the New York event last year and immediately offered to host the next one. In Brussels, the ITU Secretary-General Dr Hamadoun I. Touré, along with Ms Kroes and others, will be addressing the European Parliament on the need to increase efforts to encourage more participation of girls in the ICT field. This really is a landmark event and we expect a big impact afterwards.

We are also celebrating the day here at ITU in Geneva. The Telecommunication Development

Bureau is holding an event at ITU's ICT Discovery museum bringing together local students with ICT professionals for a series of inspiring workshops on coding, creating mobile apps and how to manage satellites.

***The three-year Tech Needs Girls campaign was launched on 26 April 2012 in New York on the occasion of Girls in ICT Day to raise awareness worldwide of the key role of ICT in gender empowerment. What is the impact of this campaign so far and what other steps are being taken to achieve this objective?***

**DBM:** The Tech Needs Girls campaign is the promotional angle linked to Girls in ICT Day. The two go hand in hand. The campaign aims to tackle the image problem for young girls who might perceive the tech field as being boring and geeky.

The topic of girls and women in technology came up at the September meeting of the Broadband Commission, where we had the privilege of having our special envoy Geena Davis with us. Ms Davis challenged the Broadband Commission to create

a working group on gender, and her proposal was met with enthusiastic applause. United Nations Development Programme Administrator, Helen Clark, enthusiastically agreed to chair the group, which had its first meeting in Mexico City on 16 March 2013.

The group is looking at gender from two angles: from the career side (getting more women and girls involved in the technology field and having ICT careers); and, more generally, from the empowerment side (looking at how technology can empower women and girls). The group established a new target calling for "gender equality in broadband access by the year 2020". This target will be monitored as part of the annual State of Broadband report.

***What are the most impressive partnerships that ITU has embarked on in terms of making a difference to girls' career choices or women's capacity to serve their communities?***

**DBM:** The good news is that ITU is involved in lots of interesting projects in this area. For example, the Telecommunication



Development Bureau has been actively engaged in promoting digital literacy through a partnership with the nongovernmental organization Telecentre.org that has already trained more than 680 000 women worldwide and is on track to train one million women by the 2015 target date of the Millennium Development Goals. ITU has also announced its support to the SmartWoman mobile-based learning programme. Designed

initially for second-generation cellular phones and now scaled up to leverage more advanced smartphone devices and tablets, SmartWoman is targeted at low- to middle-income urban and high-income rural women business owners. It offers learning in communication skills, banking, finance, health, and balancing life between family and work.

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***With some 20 women as CEOs of Fortune 500 companies, there is clearly a women leadership gap. How is ITU doing in this regard?***

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**DBM:** If you look at our sector, the numbers are not that much more encouraging. Of the 193 Member States of the Union, we have only 16 women ministers. Of the 160 ICT regulators, only 10 are headed by a woman. Within ITU itself, there have been just two women who chaired the Council.



Lyndall Shope-Mafole of South Africa was the first in 1999, followed by Kathleen G. Heceta of the Philippines in 2000. And the first woman ever to chair a World Radiocommunication Conference (WRC) was Veena Rawat of Canada at WRC-03. In 2006, Dr Hessa Al-Jaber of Qatar was the first woman to chair a World Telecommunication Development Conference. Julie N. Zoller and Martine Limodin were the first two women to be elected to the Radio Regulations Board. And so far no woman has chaired the Plenipotentiary Conference.

***ITU Member States adopted Resolution 70, yet generally send predominantly male delegations to the Union's conferences and meetings. While the ITU secretariat cannot tell Member States what to do, are there approaches that it can take to promote a gender balance in leadership roles and to encourage more participation by women?***

**DBM:** We can work towards achieving a gender balance in the chairmanship and vice-chairmanship of ITU meetings.

We can encourage our Member States to put forward women candidatures for the study groups. This is what ITU's Telecommunication Standardization Sector (ITU-T) did for the World Telecommunication Standardization Assembly, which revised and adopted Resolution 55, putting in motion positive steps towards mainstreaming a gender perspective in ITU-T activities.

***As a decision-maker and ITU's most senior woman, what advice would you give to women who aspire to a similar career?***

**DBM:** Perseverance and determination are key. Aim high. Be patient, while remaining assertive. Be yourself. Step forward or "Lean in", as Sheryl Sandberg would say.

Find that balance between work and family. This is perhaps the greatest challenge and a constant juggling act.

We need to support and encourage each other. As Navi Pillay, the United Nations High Commissioner for Human Rights, said, **"Every woman who climbs to the top needs to turn around and make sure that she left the ladder standing, so that the next woman coming up can use it."**

Don't give up.

## Interview with Julia Watt

**Chief of Human Resources  
Management Department, ITU**



ITU/ITU.R. Farrell

*Julia Watt joined ITU in September 2010 as Chief of Human Resources Management. Before that, she was Chief of Emergency Preparedness and Response, and then Chief of Recruitment and Postings in the Office of the United Nations High Commissioner for Refugees. Prior to her Geneva postings, Ms Watt held programme management and human resources positions in the field — including in Côte d'Ivoire, Ethiopia and Senegal — as well as undertaking field missions, principally in Africa. She started her 22-year career in the United Nations system as a young professional officer in Dakar, Senegal, with the United Nations Development Programme. Ms Watt holds a Master of Arts in Political Sciences and Environment Studies, a Bachelor of Education, and a Bachelor of Arts in Political Science and French from the University of Toronto, Canada. She is a national of both Canada and Senegal, speaks English, French and Russian, and is married with three children.*

### *What sparked your interest in human resources management?*

**Julia Watt:** I started out working mostly on health-related projects, HIV and maternal mortality, things like that. Then I moved into refugee programme officer work. But throughout the first five to ten years of my career, I was always interested in the staffing aspects. What sparked this interest was the impact that personnel

administration was having on me and my work — and on my family development, because in the process I got married and had children. So I could see the way that human resources management was making a difference in my life as a staff member and as a person.

I also felt that I had the right personality for it. People would come to me spontaneously, even though I wasn't in human

resources at the time, and ask me: How do I apply for this? How do I get home leave? I was able to share my experiences with them. That was very gratifying, and it reinforced my interest in human resources management.

Then there were two human resources gurus, who were colleagues of mine in the Office of the United Nations High Commissioner for Refugees — Alejandro Henning and Duncan



Barclay. I admired and looked up to them, and wanted to be like them. I was absolutely thrilled when I got the opportunity to work with them. They are both retired now but are still consulting, and they have been guiding lights in my human resources quest. They really inspired me a lot.

***What are the most challenging aspects of your job, especially in the male-dominated field of technology?***

**JW:** Human resources work doesn't change, whether it is for men or women — it involves the same application of the rules and how that affects staff. The most challenging part is finding a balance between what works best for the staff member, what works best at the same time for the organization, and what works best for management — taking that triangle and bringing the corners together somehow in a win-win situation. Throughout that, there's managing expectations, managing personalities, managing conflicts. It is all extremely challenging — and satisfying when you find the right approach and a solution.

***How did you juggle family life and a career?***

**JW:** In my mind, it was never an option to quit working to raise my family. Both my mother and my father worked. Everybody in our family worked. I grew up with that and that was the way things were. We didn't take time off, except for statutory maternity leave. You just organize yourself accordingly. You put in place the necessary mechanisms — the nannies, the crèche, the family, the extended family. My husband is also with the United Nations, so that added a degree of difficulty because we were not posted in the same locations. He was in Guinea while I was in Côte d'Ivoire. Then he was in Côte d'Ivoire while I was in Dakar. He stayed in Côte d'Ivoire when I came to Geneva, and then he joined me in Geneva. We had to juggle visits, our relationship and parenting. But that was our conscious choice. It was not a compromise or something we ever regretted. We knew how it was going to be, and we managed it. We didn't have a traditional family like my parents, who have lived together for the past 52 years without spending any time apart. It certainly is nicer now that my husband is here in Geneva, and

for the past 8 years, since 2005, we have lived a more or less traditional life. But that's 8 out of 19 years. So it is okay, it works.

***Which was your favourite posting?***

**JW:** All of my postings have been great, but if I really have to choose my favourite, I would have to say Côte d'Ivoire. It was very interesting for me because it was my first human resources regional position, covering all of West and Central Africa. I headed a fantastic team in a brand new decentralized regional directorate. We had great support from headquarters, but we were out in the field and we had the latitude to be innovative. So, with the authority of headquarters and regional decentralized control, we had the best of both worlds. The human resources work in itself was my first autonomous exposure, and it was just great and I really thoroughly enjoyed it.

And then the other aspect — I was there from 2000 to 2003 — we had maybe nine or ten attempted coup d'états, and before that we had elections. We had all kinds of political excitement — security, politics,



refugees, militias, some ugly stuff. I am a political scientist by training, so for me watching that unfold was like watching a PhD dissertation write itself on the streets. It was a phenomenally interesting place and time.

Keeping my family safe and happy was an additional challenge — I had three children under the age of 7, and my youngest was just one and a half years old then. But we had the best three years there, in terms of family life and in terms of their schools, activities and friends. My son and daughter are still friends with kids they were at primary school with at the time.

***How did you deal with it as a woman, and did you feel insecure?***

**JW:** It didn't occur to me that there was a way to deal with it as a woman or a man. My husband wasn't there — he was in Guinea at the time — so I kind of ran the show. That was good. I didn't live an ostentatious expatriate lifestyle. My husband is from West Africa, so I felt very much at home. And I had a very good support network of friends, colleagues and household staff. My nanny from there is still with me 13 years later.

***How has your previous experience prepared you for your work here at ITU?***

**JW:** Everything that I have done in my life has prepared me. I have learnt a lot as I progressed through the various responsible jobs that I have had. Competing for my job at ITU, I was able to show that I could offer something that the Union was looking for — and I am confident that I have done so. And this is preparing me for whatever comes next in my life. It is really just a journey — a process.

***How do you to maintain the confidence of ITU staff while implementing policies that they may perceive as harsh?***

**JW:** You have to manage expectations. You have to be very clear — and explain again and again and again. You have to be extremely patient, tactful and calm. You have to speak the truth from the beginning — if you don't, people lose trust and your job becomes impossible. You have to have compassion and empathy — yet you still have to balance the needs of the organization, because after all that's what we are all here for. We are here in our own personal capacity, but we are working for an organization. That's the common driver — the common goal — for everyone.

***What political scientist or philosopher has most influenced your way of seeing the world?***

**JW:** The philosopher John Locke, who wrote "The mind is furnished with ideas by experience alone". That really rings true for me. I believe that our experience defines us, and that we in turn shape our experiences. This encourages me to continue

learning and seeking out new experiences in order to shape new ideas. Because running out of ideas and innovation would be very sad indeed.

***What advice would you give to a young woman starting out today to build a career similar to your own?***

**JW:** I would say study, study and study. Today this is even more important than yesterday. Professional certification is essential, and a Master's degree is an absolute minimum. So any young woman that I come across, any interns that I talk to, any new recruits, if I see that they don't have a Master's degree, I tell them to go back to school and get one. Work a little bit, put money aside and go and get it, or do it online by correspondence, but somehow do it.

Perseverance is extremely important — I must have applied for a thousand jobs. You can't let yourself be defeated by a negative response or a thousand negative responses. You have to keep going. What else are you going to do? I would say that there is no such thing as failure in my mind. Failure only happens when you quit

trying. Get lots of advice — talk to lots of people. Go to people who have succeeded, and see how they did it. Learn from the steps they took, because everyone has a different journey. My daughter is going to university next year, and I tell her to talk to everyone, her teachers, her colleagues. Everyone has something to contribute, and then you take the best from all of that and build your own path.

But don't dwell too much on the woman stuff. I would give the same advice to young men as to young women. I think women face a disadvantage to some extent, but I refuse to accept it. The more we celebrate the differences and refuse to accept the disadvantages, the more we are strengthened and can move forward with our capacities. Everybody has different capacities, and they are not gender-based as far as I am concerned.

***Any final thoughts on your life in general?***

**JW:** I have had a really great time so far, and I have been lucky in many ways. I am looking forward to the next 100 years!



## ■ Interview with Victoria Alonsopérez

### **CHIPSAFER** *Remote monitoring to detect livestock diseases*



*Victoria Alonsopérez is a Telecommunications, Electrical and Electronic Engineer. She is a winner of the 2012 ITU Young Innovators Competition with her CHIPSAFER project. She is also a co-founder of Innovative Efficient Engineering Technologies (IEETECH), a social enterprise of young entrepreneurs who look for efficient engineering solutions to current problems.*

*What motivated you to enter the ITU Telecom World Young Innovators Competition in 2012? And what advice would you offer young women who hope to become innovators?*

**Victoria Alonsopérez:** For several years I had been thinking about how to use technology to overcome some of the endemic economic problems faced by Uruguay and indeed the whole

region. Because our economy is based on agricultural and livestock exports, one of the biggest threats has always been animal diseases. This gave me the idea of creating a telecommunication system that could remotely detect outbreaks of disease in cattle by monitoring rising temperature in the animals. But I did not have the means to start developing my concept. Then about a year ago, I found out about the ITU Telecom World

Young Innovators Competition. After reading a description of the competition, I thought it would be the perfect opportunity to help me turn my concept into reality.

My advice to young women who aspire to become innovators is to take advantage of every single opportunity that arises — just like I did when I found out about this competition. For me, winning the competition was an extraordinary experience.

***How has winning this competition contributed to the development of your CHIPSAFER project?***

**VA:** Winning this competition opened a lot of doors for me. Last year I just had a concept but now I have founded my own company to develop the product. The guidance provided by ITU was instrumental in making this happen. During my participation in ITU Telecom World 2012 I learned a lot and met many role models. And the support that I got from ITU afterwards was amazing. I received plenty of good advice from the mentors and the organizers of the competition. Also, Brahima Sanou, Director of the ITU Telecommunication Development Bureau, visited Uruguay and introduced me to very influential people in the region, which has helped me enormously.

***Is the business environment in Uruguay conducive to your project and activities — especially as a female innovator?***

**VA:** Considering that my country's economy depends largely on livestock, the system that I have invented offers tangible benefits.

I believe that there are excellent opportunities to develop my product here. As far as I can tell, the fact that I am a woman has made no difference to the enterprise. At all times, the determining factor has been the project itself and its development in the local market.

***What are the next steps for your project?***

**VA:** I have already founded a company, Innovative Efficient Engineering Technologies (IEETECH), to produce my winning device. Our company mission is to transform innovative ideas into reality. I am currently working with a team of engineers on finishing and testing the prototypes. Once this stage has been completed — and I expect that to happen shortly — I will begin to commercialize the device.

***Who or what inspired you to study telecommunications, electrical and electronic engineering?***

**VA:** I had a passion for space from a very young age. It all started when I was four years old. I asked

my father, who is an accountant by profession, what was the use of the numbers that he had written on a piece of paper. He took me to the window, showed me the moon and told me that putting numbers together in the right way had made it possible for humans to go to the moon. I was so impressed that, then and there, I decided that I wanted to be an engineer. Later I discovered that electronic engineers were contributing significantly to space exploration, so I decided to pursue telecommunications, electrical and electronic engineering at the Universidad de la Republica in Uruguay. For my thesis, I designed and built the altitude determination system of the first Uruguayan satellite.

***What obstacles did you have to overcome to succeed academically?***

**VA:** In Uruguay, we are currently taking the first steps in putting aerospace engineering into practical use. Pursuing a space career in a country that — at that time — had no aerospace industry was not easy. I was frequently told that I would never be able to work in the aerospace field and was discouraged from following



my dream. Fortunately, I did not pay attention to those comments and I never stopped trying. I presented aerospace projects in different forums and attended extracurricular courses in this area. My big break came in 2009, when I obtained the International Astronautical Federation Emerging Space Leaders Grant to present a paper at the International Astronautical Congress. There, I found out about the Space Generation Advisory Council and got to know the Council members. I loved the work they were doing,

so I currently serve as South America Regional Coordinator.

In 2011, I got a scholarship to participate in the International Space University's Space Studies Program where, together with two friends, I helped design a medical experiment that won the Barcelona Aerobatics Zero-Gravity Challenge. In 2012, I served as the Space Engineering Department Teaching Associate at the Space University's Space Studies Program in Florida, United States. It is noteworthy that all these achievements

and especially the recognition from ITU were highly valued in Uruguay, where I was interviewed by the media several times. This prompted many people to get in touch with me and generated interest in these activities.

To sum up, I would say that, despite repeated negative comments about following an aerospace career, it is thanks to my academic background that I am now developing a system that uses space technology to help farmers worldwide.



## ■ Interview with Iram Tariq Bhatti

### **LabMagic** *Virtual science laboratory for secondary schools*



*Iram Tariq Bhatti holds a Bachelor's degree in Electronics Engineering from the National University of Sciences and Technology in Pakistan. Her idea of a virtual science laboratory for secondary schools — LabMagic — made her one of the winners of the ITU Young Innovators Competition at Telecom World 2012. She is the founder and CEO of LabMagic.*

**What motivated you to enter the ITU Young Innovators Competition at Telecom World 2012? And what advice would you offer young women who hope to become innovators?**

**Iram Tariq Bhatti:** I come from a developing country, Pakistan, where we face many challenges. Among these challenges, education raises serious concerns because of the limited resources that the Government of Pakistan has at its disposal to provide funding for secondary schooling. I started thinking about ways to fill this gap and came up

with the idea of LabMagic. This is a virtual science laboratory for schools where students can perform lab experiments in a safe, cost-effective and fun-filled environment. One of the great benefits of a virtual system is that students can repeat practicals a countless number of times, enabling them to gain a better understanding of the subject.

To take this idea forward I needed resources. As a way of seeking support, I decided to participate in business plan competitions. While searching for competitions to enter, I came across the ITU Young Innovators

Competition. It was an amazing moment when I first saw my name on the list of finalists. I decided to work even harder to turn my dream into reality and the result was that my project was chosen as one of the winning entries to this competition. My excitement increased when I learned that I would not only be provided with seed money but also with a one-year fellowship. As a young innovator, I am finding it a really awesome experience to work with ITU and develop my professional network.

I would say to all female participants "It is YOU who has the

potential, not the idea". My advice would be just to think out of the box and come up with ideas that can solve social problems. No one knows how important your small contribution will be in overcoming a social problem faced by society. Don't be afraid of failure. People most often do not succeed in their first plan. Instead, failures pave the path for their future successes.

***How has winning this competition contributed to the development of your LabMagic project?***

**ITB:** Everyone loves to win, and I do too. Winning the competition was the first step in achieving my goals in life. It gave me confidence that the idea of LabMagic has the potential to contribute to a social cause, namely to support

education. The seed money I received from ITU is being used to build the team and take the idea forward. The platform provided by ITU opens up opportunities for a young innovator like me, leading to collaborations, funding, and of course mentoring.



***Is the business environment in Pakistan conducive to your project and activities — especially as a female innovator?***

**ITB:** No, in general there are a lot of cultural barriers that prevent females from pursuing their ambitions in entrepreneurship in Pakistan. That is the reason why there are not many success stories of female entrepreneurs from Pakistan.

Pakistan, however, is transforming at a rapid pace, and females are contributing greatly on the economic, social and political fronts. As in other domains, positive trends have been found in female entrepreneurship. Pakistan's National University of Sciences and Technology is also contributing a lot in this respect through its technology incubation programme. Several other forums are also promoting the entrepreneurial culture in the country.

***What are the next steps for your project?***

**ITB:** It is good to dream and have lots of ideas. But ideas have no significance until the time we validate their impact in reality. Now I am working towards getting my idea recognized at global level, so that my dream of empowering secondary school students through technology may come true.

***Who or what inspired you to study electronics engineering?***

**ITB:** I have always loved to play with numbers, and during my childhood I was awarded several certificates and shields for my performance in mathematics exams. My parents used to hide electronic toys from me, because instead of playing with them, I used to take them apart as I was much more interested in knowing how they worked. This gave my parents a hint that I should pursue a career in electronics engineering.

***What obstacles did you have to overcome to succeed academically?***

**ITB:** In Pakistan, females with technical ability are generally expected to train as medical doctors. A very few pursue engineering as a career. I was the first female in my family to opt for engineering as a career. Out of a class of 80 students, just seven of us were women. We had to work very hard indeed to pass our examinations and hold our own against the men in the highly technical subjects.



## ■ Interview with Hajra Cassim

**Showmemobi**  
**Mobile platform for telling**  
**South African stories**



*Hajra Cassim from South Africa's Film Industry Learner Mentorship (F.I.L.M.) was one of the winners in the Not-For-Profit Digital Innovators Award category at ITU Telecom World 2011. She won the award for pitching a mobile-content-generation project called showmemobi. Ms Cassim explains that: "Through showmemobi, we want to empower people who are marginalized to tell and sell stories — stories that touch and transform lives and in the process, create employment for emerging micro-entrepreneurs who generate the content."*

**What motivated you to enter the ITU Young Innovators Competition at Telecom World 2011? And what advice would you offer young women who hope to become innovators?**

**Hajra Cassim:** My motivation to enter the ITU Young Innovators Competition stemmed from the fact that I was unemployed and could not use my traditional degrees to gain employment. I decided to follow my heart and passion, and saw that my love of social media and filmmaking could

be combined to create hybrid platforms for telling South African stories. I joined the Film Industry Learner Mentorship programme, which provides employment, training and skills in the film industry. Knowing that ITU has a history of investing in creative and innovative solutions for young female entrepreneurs, I realized that entering the ITU competition was a great way to create a ripple effect for our not-for-profit showmemobi venture.

My advice to any potential entrepreneur is to "follow your

bliss" or to follow the life journey that truly gives you joy. Have fun, create opportunities, and be willing to learn and adjust your plan accordingly. I have realized that what we term mistakes are in reality opportunities for growth and refinement. Having an outline or blueprint is essential for budgets or schedules, but try to experiment, persist with good ideas, and remember that sometimes creativity and innovation can be a product of necessity, as our experience shows.

*How has winning this competition contributed to the development of your showmemobi project?*

**HC:** Winning the competition was the first step in helping to create a foundation upon which we could build our social media platform. The win provided the much-needed equipment to film our stories and narratives, to create employment and engage with other stakeholders in the community to address social issues, create awareness or highlight events in Cape Town. We have now successfully launched Kwaai City, a social media magazine programme about local events and community news. We have been invited to gatherings of entrepreneurs, and we have made a guest appearance on SABC 3 television to talk about our programme.

*Is the business environment in South Africa conducive to your project and activities — especially as a female innovator?*

**HC:** The business environment in South Africa is conducive in some ways to our project activities, because it offers support such as providing networking opportunities with other entrepreneurs. We are given creative licence and media accreditation to major events and festivals, and we have received help in setting up partnerships with other not-for-profit organizations. However, more could be done by the corporate sector and by government to engage young filmmakers in projects. At present the culture and political climate of South Africa encourage female entrepreneurship and creativity, but many disparate organizations are involved, so there is an evident need for a central agency.

*What are the next steps for your project?*

**HC:** The next step for the project is to create 12-part dramas for mobile phones. The stories will be based on topics such as community health, specifically with regard to women's wellness, and care of young infants and children, with a focus on nutrition and safety. Although these episodes will seek to entertain, they will have an underlying message in order to raise awareness, provide information and provoke discussion on pertinent topics in South Africa, such as HIV, tuberculosis, depression, unemployment, and youth education.



Some of the Kwaai City social media magazine team

***Who or what inspired you to study film?***

**HC:** As a young child I was inspired by my mother who took me to the cinema. The cinematic experience was magical — it was a world in which I felt that dreams could come true. Later, a dedicated mentor inspired me to study the craft and art of filmmaking so that I could relate my narrative in a creative, engaging manner. Independent filmmakers and community filmmakers who have little or no budget yet who manage to create wonderful stories inspire me.

***What obstacles did you have to overcome to succeed in filmmaking?***

**HC:** Initially the barriers to entry were high, but winning the ITU Young Innovators Competition opened up opportunities and attracted media coverage, creating awareness about who we are and how we are fulfilling a positive function in the film industry. The learning process of filmmaking and social media is ongoing. I learn new skills and better styles of filmmaking daily.





## ■ Interview with Catherine Mahugu

### **SasaAfrica**

**A woman-owned and operated social enterprise that empowers craftswomen to become global entrepreneurs**

*Catherine Mahugu graduated from the University of Nairobi with a bachelor's degree in Computer Science. She has been involved in various ICT for Development projects, including Stanford University's Nokia Africa Research Center Design Project, building mobile applications targeting informal communities. She co-founded SasaAfrica to provide a widespread simple mobile-to-web e-commerce platform, connecting micro-manufacturers in emerging economies to the global marketplace, enabling economic growth and bridging the digital divide.*

**What motivated you to enter the ITU Telecom World Young Innovators Competition in 2012? And what advice would you offer young women who hope to become innovators?**

**Catherine Mahugu:** Women have long seen craftwork as a method of empowering themselves economically. But because the supply chain is costly and complex, middlemen end up controlling

access to the global marketplace and profitability.

The creativity, ingenuity and resilience of craftswomen inspired me to create SasaAfrica as a trading platform to connect offline vendors to online consumers. I envisioned that providing a culturally appropriate technology would help reduce the systemic economic discrimination that women in the developing world face.

The ITU Young Innovators Competition was an ideal forum for promoting SasaAfrica because its theme, "Youth Innovation for Development", was in line with our mission of providing e-commerce, everywhere for everyone. Our business model disrupts traditional trading practices by targeting women at the bottom of the pyramid and offering them global access to trade without the need for a computer, Internet access or bank account.

Artisan using the  
Sasa SMS and MMS  
technology



Instead, they can use a simple mobile phone to access the global market through our platform.

The competition was a life-changing opportunity, helping to build SasaAfrica by providing mentorship, coaching and access to an extensive network that led to fruitful partnerships while in Dubai during the ITU Telecom World 2012 event itself.

When one woman helps another, amazing things can happen. For example, professional careers can leap forward. I believe sharing my personal experience and message with like-minded women can be beneficial. There are countless opportunities for women in technology. Devote yourself to an idea, overcome your fears, believe in yourself, and turn your dream into reality.

No matter how many times you fall down, never give up. Learning from success is important but learning from failure is vital to succeeding.

Artisan using the Sasa  
Android platform



***How has winning this competition contributed to the development of your SasaAfric project?***

**CM:** ITU involvement has been instrumental to the company's growth. SasaAfrica expanded tremendously after the project reached the finals of the competition because ITU gave us global exposure to peers and investors. Our network attracted hundreds of like-minded individuals.

The funding from the competition made it possible for us to recruit software engineers to help build robust and scalable technology, enabling us to officially launch our website platform to the public during the DEMO Africa Event in 2012.

In addition to our short messaging service and multimedia messaging service (SMS and MMS)

technology platform, we created an Android platform for vendor and product registration. This has had a positive uptake by the community despite the transition from a simple 2G feature phone to a smartphone. As a result we have partnered with Kiva-Zip, a micro-lending institution that offers Sasa artisans an opportunity to own a smartphone and take advantage of our new capabilities. The artisans see the value of acquiring a smartphone because of the better quality product images, faster product upload process and the possibility of maximizing other features on the phone by reading the latest updates via their browsers. The most convincing argument of all, though, is the increase in online sales through our e-commerce site.

In January 2013, we tested the scalability of our venture by carrying out a pilot project with local artisans in Bikaner, India. In February, we held the Sasa Annual Conference to celebrate artisans who have excelled through personal drive and by using our technology to gain access to the global market. This was an opportunity to instill the best technical and business practices, get consumer feedback and promote branding.

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***Is the business environment in Kenya conducive to your project and activities — especially as a female innovator?***

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**CM:** Kenya is the perfect first market for our business tools because of pervasive mobile infrastructure (over 75 per cent mobile phone ownership), mobile money penetration and ubiquitous mobile banking, and reliable shipping infrastructure. Sasa's vendor network currently spans the city of Nairobi, encompassing low-income women of multiple ethnic and cultural affiliations. Looking five years ahead, we see our platform serving as the standard for equitable international exchange, connecting female vendors and consumers around the world. We have forged strong relationships with banks, telecommunication companies and marketing channels to make Sasa a sustainable success.

Kenya, through Vision 2030, recognizes information and communication technologies (ICT) as a foundation for a knowledge economy. Accordingly, the government's objective is to ensure that the country has a competitive telecommunication industry that delivers reliable and affordable services and

products for the economic and social benefit of citizens. The government has also launched an ICT-based incubation programme to increase the capabilities of entrepreneurs through improved technical and business skills, business counselling and access to affordable services and facilities. It also seeks to facilitate access to finance by small- and medium-sized enterprises, provide better linkages with both the academic community and industry, and quicker commercialization of innovations. The government is striving to put in place a reliable and efficient connectivity infrastructure to improve the performance of ICT. All of these measures provide empowering conditions to facilitate women's pursuit of technological innovation and commercial success.

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***What are the next steps for your project?***

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**CM:** SasaAfrica aims to grow into new markets once we have successfully scaled up within Kenya. By the end of 2013 we will have created a niche market with an estimated 250 vendors selling to 6000 customers





*Example of jewellery made by the artisans*



*One of the Sasa vendors*

around the world. This will be the groundwork for expansion into three new markets in Sub-Saharan Africa starting early 2014. By 2015 SasaAfrica is expected to connect over 18 000 vendors from developing regions to global e-commerce and help them to gain access to formal banking.

We aim to partner with telecommunication companies to roll out a national cross-branding campaign, promoting our services at every mobile kiosk and sales point that they operate. Our marketing model aims to grow along trust networks,

incentivizing vendors to recruit other micro-manufacturers.

To meet vendor demand, we are expanding our mobile business tools and creating a custom marketplace. To meet consumer demand, we will extend our product offerings, serving both the retail and wholesale markets.

Our social impact is integral to our business success. We must ensure that the community groups using our technology can eventually afford to participate as consumers in the marketplace that we are creating.

Our social and economic success is measured in the percentage reduction of health risks among vendors. The economic empowerment of craftswomen is measured in the number of new micro-enterprises registered. And our contribution to closing the global digital divide is measured by the number of new female mobile users.

A woman is still 23 per cent less likely than a man to own a phone in Africa. By extending the benefits of mobile phone ownership and Internet access to women, a number of social and economic goals can be achieved.

**Who or what inspired you to study computer science?**

**CM:** Imagine a world without computers. There would be no laptops, Internet, modern cars, trains or aircraft. There would be no mobile phones or digital cameras. Computer science provides the knowledge base that drives the game changing innovations in today's world.

From a young age, I was fascinated by science, technology, engineering and mathematics. Family support motivated my sister to study civil engineering and me to study computer science. Although these are male-dominated fields, my parents' positive attitude provided an empowering environment, and we were encouraged to pursue our own interests.

I want to push technology forward in a way that has a positive impact on society, so computer science was the perfect career choice.

**What obstacles did you have to overcome to succeed academically?**

**CM:** Being a female student or a female entrepreneur in a male-dominated technology field is challenging, and comes with a distinct set of barriers. Women often have a taller mountain to climb to advance their careers in the technology industry because there are few women role models to emulate or who can provide career advice.

The start-up culture was relatively new when I was at University, and one of the challenges was to find like-minded entrepreneurial women who could help me overcome the obstacles inherent in starting a venture. I took the initiative of joining the ICT for Development workshops to hone my computer programming and entrepreneurship skills. Attending such forums gave me an insight into how my career would develop after university.

This is why I have been promoting mentoring, so that girls can connect with women who have succeeded in the ICT domain and see that ICT experts are not necessarily male.

Despite the lack of peer support groups among female students, I was driven by the passion that I could achieve anything I believed in.

During my final year, I took a risk by being the only student to do a hardware project. The challenge I set myself was to fuse my passion for physics and engineering with my computer science skills. Disregarding comments about the advisability of sticking to a software project, I decided to follow my gut feeling and do what I loved. With careful planning I was able to both start a venture and deliver a completed hardware system, proving that women can take up a challenge, set the pace, and accomplish what they want to achieve.

*All photographs in this interview are by Stephanie Sunderland, SasaAfrica photography fellow*

## ■ ITU Young Innovators Competition

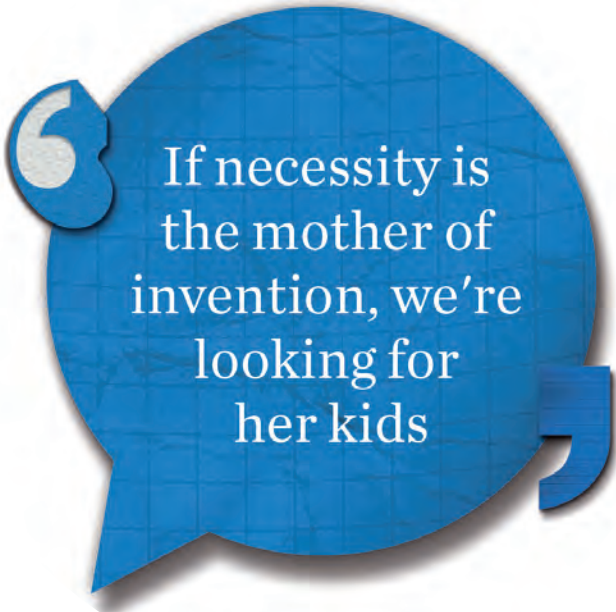
*Winning entries will receive up to USD 10 000 in funding and can showcase their innovative ICT solutions to global challenges at ITU Telecom World 2013*

ITU has launched its third Young Innovators Competition offering talented social technopreneurs the opportunity to present their ideas to industry leaders at ITU Telecom World 2013 in Bangkok this November — as well as winning funding, mentorship and ongoing support.

Open to 18–26 year-olds worldwide, the Young Innovators Competition is looking for innovations that use cutting-edge information and communication technologies (ICT) to help solve one specific global challenge among the six identified by ITU in partnership with other specialized United Nations agencies and leading private-sector players. The six global challenges are:

- Improve employment opportunities for young people and migrant workers.
- Reduce food and water wastage at individual and retail level.
- Facilitate access to public services for the elderly.
- Improve natural disaster prediction and response.
- Improve road safety for both drivers and pedestrians.
- Protect sensitive personal data and inspire the creation of local digital content.

These challenges reflect spheres of life where the need for improvement is urgent and where ICT could provide wide-ranging benefits. The competition seeks pragmatic, market-oriented, scalable solutions making use of connected technologies, such as augmented reality, mobile apps, 3D printing or geospatial tracking.



If necessity is  
the mother of  
invention, we're  
looking for  
her kids

Entries may be either in the form of a concept, with well-researched or documented ideas that have not yet been implemented, or a start-up that is already up and running but in need of funding to take it to the next stage.

To enter the competition, simply complete the application form available at <http://world2013.itu.int/participate/innovate/> and send it to [young.innovators@itu.int](mailto:young.innovators@itu.int) with "2013 Young Innovators





Competition" in the subject line. Entries must be received by **30 June 2013, 24:00 GMT +2.**

Ten winners selected by a committee of experts will be offered the chance to attend ITU Telecom World 2013, which will be held on 19–22 November in Bangkok, Thailand, with the theme "Embracing Change in a Digital World". Telecom World is the platform for high-level debate, networking and knowledge-sharing, as well as an ICT showcase.

The winners will work with our partners from both public and private sectors to develop their initiatives and refine their solutions within the global market in the run-up to ITU Telecom World 2013. At the event itself, they will enjoy mentoring and pitching sessions, workshop training on entrepreneurial skills, opportunities to meet and network with leading ICT players, and the chance to showcase their projects on a dedicated showfloor pavilion. Prize money in the form of seed funding will be awarded up to USD 10 000 to implement and bring to scale winning start-ups, and up to USD 5000 to realize winning concepts.

"This competition for young ICT innovators represents a wonderful opportunity to uncover creativity, innovation and talent in solving serious challenges that impact upon us all," said ITU Secretary-General Dr Hamadoun I. Touré. "We look forward to supporting and fostering new, creative thinking and fresh ideas, and showcasing them on the world-class stage at ITU Telecom World 2013 in Bangkok."

For further details about the competition and the application procedure, please see <http://world2013.itu.int/event/innovation/>. You can also visit the Young Innovators Facebook page or contact us directly at [young.innovators@itu.int](mailto:young.innovators@itu.int).

## Digital Village in photos

*Visitors to the Digital Village (Aldea Digital) were able to use smartphones, tablets and computers, as well as attend workshops and training, ranging from how to turn on a computer and surf the Internet, to the development of 3D and augmented reality design and building business online*







## **Digital Village in Mexico sets Guinness World Record**

### **ITU Secretary-General visits Digital Village and meets with new ITU Sector Member, América Móvil**

*Telcel's Digital Village (Aldea Digital) was recognized in April 2013 by Guinness World Records as the largest event for digital inclusion. From 16 to 26 March 2013, the Digital Village — a free-of-charge and open-to-everyone event — brought together more than 154 000 people at a site in the centre of Mexico City, on the Plaza del Zócalo alongside the Presidential Palace and Cathedral, emphasizing that broadband networks, services and applications are already at the centre of our everyday life.*

Visitors were able to use smartphones, tablets and computers, as well as attend workshops and training, ranging from how to turn on a computer and surf the Internet,

to the development of 3D and augmented reality design and building business online.

As reported in the March 2013 issue of ITU News, the meeting of the Broadband

Commission for Digital Development in Mexico City on 16–17 March coincided with the opening of the Digital Village, and ITU Secretary-General Dr Hamadoun





**Miguel Angel Mancera**  
Mayor of Mexico City

**Dr Hamadoun I. Touré**  
ITU Secretary-General

**Gerardo Ruiz Esparza**  
Mexico's Secretary of Transport Communication

**Ribbon cutting ceremony, Aldea Digital, Mexico City, 16 March 2013**

I. Touré addressed and toured the event, along with Carlos Slim Helú, the President of the Carlos Slim Foundation and Rwandan President Paul Kagame and other Broadband Commissioners.

According to Telcel, the high-level line-up of speakers from all over the world drew diverse crowds spanning all ages and generations — from young kids to their parents and grandparents — from tech-savvy developers to those for whom access to computers and the Internet was a novelty.

Having witnessed the Digital Village first-hand, the Secretary-General praised Telcel for their efforts to extend access to

information and communication technologies (ICT) to all parts of society. "This is a great example that should be replicated elsewhere," he said during the visit.

Dr Touré also met Daniel Hajj Aboumrad, CEO of América Móvil, to personally welcome América Móvil as a new member of all three Sectors of ITU. With 326 million subscribers at the end of 2012, América Móvil is now one of the world's largest mobile operators.

Teams from América Móvil and ITU got together to address a number of key topics, including industry and policy and regulatory trends, as well as upcoming ITU

events. These include the World Telecommunication/Information and Communication Technology Policy Forum (WTPF-13), to be held in Geneva from 14 to 16 May, preceded by a high-level Strategic Dialogue on 13 May; the Global Symposium for Regulators in Warsaw, Poland, from 3 to 5 July; and the Global Youth Summit, to be held on 9–11 September in Costa Rica. The Secretary-General encouraged América Móvil, through its operating companies, to organize a digital village during the upcoming Global Youth Summit.



## **Remembering Cynthia Waddell**

***Advocate for accessibility for  
people with disabilities***

*Cynthia Waddell, a lifelong advocate for the rights of people with disabilities, and an expert in disability rights law, public policy and electronic and information technology, passed away on 3 April 2013.*

Dr Waddell received her BA *cum laude* from the University of Southern California and held a Juris Doctor from Santa Clara University School of Law. She was a lecturer in law and pursued a career dedicated to enhancing social inclusion for the 650 million people across the world living with some form of disability.

Dr Waddell served as Executive Director of the International Center for Disability Resources on the Internet (ICDRI), an organization that seeks to increase opportunities for people with disabilities by identifying barriers to their participation, and by promoting best practices and universal design of technology for the global community.

In 1995, Dr Waddell created the first accessible web design standard in the United States. This was recognized as a best practice by the Federal Government and contributed to the passage of legislation

on electronic and information technology accessibility standards. Dr Waddell served as the built environment and accessible technology expert for the United Nations ad hoc committee during the drafting of the Convention on the Rights of Persons with Disabilities (UNCRPD) and was co-editor and co-author of the ITU/G3ict e-Accessibility Policy Toolkit for Persons with Disabilities.

Dr Waddell played an instrumental role at the World Telecommunication Standardization Assembly in 2008 (WTSA-08), in developing WTSA-08 Resolution 70 on "Telecommunication/information and communication technology accessibility for persons with disabilities". This was the first text that ITU adopted on the topic of accessibility, and it led to further affirmation of the importance of this work by the World Telecommunication Development Conference in 2010 (WTDC-10), in

its Resolutions 58 and 70, and by the ITU Plenipotentiary Conference in its Resolution 175 (Guadalajara, 2010). Dr Waddell also played advisory roles in countless other international organizations, and in public and private sector forums.

The Growing Digital Divide in Access for People with Disabilities: Overcoming Barriers to Participation, a seminal paper written in 1999 by Dr Waddell, was commissioned by the United States Department of Commerce and the National Science Foundation for the first national conference under President Clinton on the impact of the digital economy. Dr Waddell also co-authored two books: Web Accessibility: Web Standards and Regulatory Compliance (Apress 2006) and Constructing Accessible Web Sites (Glasshaus 2002; reprinted by Apress in 2003). These best practices and technical resources include the first global surveys of laws and policies

in countries addressing accessible web design.

Among other awards, Dr Waddell in 2003 won the Government Technology Inaugural Award for Leadership in Accessible Technology and for Pioneering Advocacy and Education. She was held in the highest esteem by all those fortunate enough to have worked with her.

Michael Burks, Chairman of the Board of Trustees of ICDRI, recognized that "Her efforts and accomplishments helped to improve the lives of people everywhere, regardless of their location, their situation in life, or whether or not they had a disability." Gerry Ellis of Feel the Benefit, Ireland, called her "a trojan fighter in every corner of the world for the rights of people with disabilities."

Andrea Saks emphasizes the importance of carrying on Dr Waddell's work so that the designs of new innovations or codes integrate accessibility features right from the outset, always prioritizing global interoperability. Ms Saks is an International Telecommunications Specialist for the Deaf, Convener of ITU's Joint Coordinating Activity on Accessibility and Human Factors and Coordinator of the Dynamic Coalition on Accessibility and Disability.

Ms Saks paid this tribute: "At the age of three Cynthia could not speak because of her profound hearing loss. Doctors told her parents that Cynthia would never speak,

never go to normal school and should learn sign language. Well history proved those doctors wrong. Cynthia Waddell was a woman who overcame barriers, not only for persons with disabilities but for women as well. She had a memory that was phenomenal. You could ask her any question about accessibility legislation or websites and she would produce the information in an instant. More than that Cynthia was a kind and cheerful person who deeply cared about others. I can still hear her in my mind saying my name so loudly with such happiness to see me. To lose her professionally is one thing but to lose her as friend is my greatest loss of all."

Christopher Jones, co-Convener of the Joint Coordination Activity on Accessibility and Human Factors, said that Dr Waddell "has opened a big door, and it is our duty to push that door further open until all of us are able to fully access the world of communication and information. Throughout the world, there are enormous gaps in accessibility for people with disabilities, whatever their different needs are. We need to ensure that these gaps are closed. We are blessed by the enormous progress that Cynthia achieved in opening up the road for all of us. That will be her memorial."

Cynthia Waddell is survived by her husband, her two daughters, and her granddaughter.

*Cynthia Waddell played an instrumental role at the World Telecommunication Standardization Assembly in 2008, in developing WTSA-08 Resolution 70 on "Telecommunication/ information and communication technology accessibility for persons with disabilities". This was the first text that ITU adopted on the topic of accessibility...*





## Official Visits

*During March 2013 courtesy visits were made to ITU Secretary-General Dr Hamadoun I. Touré by the following ambassadors to the United Nations Office and other international organizations in Geneva, and other important guests.*



From left to right: Hans von Geldern, ITU Liaison Officer, Rohde & Schwarz; Peter Riedel, Executive Vice President, Head of Radiomonitoring and Radiolocation Division, Rohde & Schwarz; and Dr Hamadoun I. Touré, ITU Secretary-General



Elizabeth Longworth, Director of the United Nations Office for Disaster Risk Reduction



Dr John O. Kakonge,  
Ambassador of Kenya



Marius Catalin Marinescu,  
Chairman of ITU Council 2013



Houlin Zhao, ITU Deputy Secretary-General and Atsushi Kuwabara, Director of the Specialized Agencies Division, International Cooperation Bureau at Japan's Ministry of Foreign Affairs

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All photos are by Rowan Farrell/ITU.

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