International
Girls in ICT Day

Expand horizons,
change attitudes

#GirlsinICT
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TOOLKIT

Organizing a Girls in ICT Day event

Information and Communication Technologies (ICTs) drive growth and innovation worldwide, infiltrating all aspects of our lives. These ongoing advances in ICTs effectively make digital literacy a prerequisite for employment and entrepreneurship opportunities and are leading to a projected shortage of at least 2 million ICT employees worldwide by 2020. Studies show that not enough young people are choosing careers in ICT - especially not enough young women. Expanding the global technology talent pool to include more women with ICT skills can help fill this gap. **This means investing in girls and young women today.**

Supporting the global Girls in ICT movement empowers girls and young women, giving them the confidence to pursue ICT studies and careers. Girls and young women have the potential not only to become ICT users, but also to become ICT creators. And the good news is that jobs as ICT creators often offer higher salaries and lower gender-based pay gaps than in other fields.

Girls in ICT Day events make girls and young women aware of the vast possibilities ICTs offer, **quelling misconceptions about the sector and inviting them to envision their future as ICT creators.**

Encouraging women and girls to pursue ICT careers also fosters a more dynamic technology sector, posing extensive benefits for companies. A more gender-balanced workforce reflects the customer base more accurately, enhances productivity and innovation and leads to better financial results.

International Girls in ICT Day, an initiative backed by all ITU Member States in ITU Plenipotentiary Resolution 70 (Rev. Busan, 2014), aims to create a global environment that empowers and encourages girls and young women to consider careers in the growing field of ICTs, enabling both girls and technology companies to reap the benefits of greater female participation in the ICT sector. **International Girls in ICT Day is celebrated on the 4th Thursday in April every year.**

The following toolkit provides ideas and tips for organizing a successful Girls in ICT Day event and giving girls a chance to see and experience ICTs in a fun, accessible and educational way.

Thank you for taking the first steps in celebrating International Girls in ICT Day!

IDEAS FOR EVENT ACTIVITIES

How you will choose to organize your Girls in ICT Day event is up to you – your time, available finances and resources, context, and partners willing to lend a hand. Girls in ICT Day events come in various shapes and forms, and there is no specific template or model to organize an event. **The most important thing is to spark girls' interest in ICT and raise awareness on the topic**. So be inventive and innovative when planning your event!

This section gives you inspiration and ideas by showcasing examples of activities that have proven successful in previous Girls in ICT Day events around the world. **The following examples can be used by ITU Member States, Sector Members, other private sector companies, Non-Governmental Organizations, schools and universities.** Keep in mind that you can mix and match different event styles.

Examples of event activities

1. **Hands-on workshops and activities**

2. **Open days at an ICT company, government agency, university or any ICT-related institution**

3. **Competitions and Prizes**

4. **ICT career fairs**

5. **Meeting and hearing from female role models**

1. Hands-on workshops and activities

Workshops are an excellent way to give girls a taste of what you can actually do with technology. In order to engage girls' interest, it is crucial that they not only hear about technology, but also *use* it. Girls will see for themselves that you don't need to be a math wizard in order to code, or a science expert to programme a robot. **In a workshop, girls will discover that technology is all about creativity, collaboration and, most importantly, a lot of fun!**

The next pages will give you some ideas for workshop activities as well as examples of useful resources which are mostly available online. Don't limit yourself to these – you'll find plenty of more resources online! Deciding on a workshop activity depends greatly on girls' ages and their previous experience with ICTs. Try to find the right balance by choosing activities that are not too difficult but still challenging enough to keep the girls interested and motivated. **Encourage them to have fun, work in pairs or small groups and not be afraid to make mistakes!**

✓ Mobile app building

Building mobile apps gives the girls a glimpse of the booming app industry and lets them experience creating something with technology. In the UK, GSMA hosted **an app building workshop,** where girls created apps of their choice, which included the **Beat the Bullies app**- an app that provides resources and videos to help children who are being bullied or who think their friends are in trouble, and the **Local Lowdown app** – highlighting activities in their local area including shops, socializing and maps. In Lebanon, the event by mobile operator Alfa included a competition in which girls were asked to come up with **ideas for smartphone applications that could make society a better place for all.**

Online tools for building mobile apps	❖ **Appshed** ❖ **Appinventor&Appinventor 2** ❖ **Ratchet** ❖ **LiveCode**

✓ Coding clubs

Coding is at the heart of today's digital world. Hence, it is essential that girls are introduced to the logic of coding and programming languages. In Senegal, Imagi-Nation Afrika held a coding camp, where girls learned the programming languages **HTML, CSS and JQuery**, and participated in the **Hour of Code.** In Liberia, the Ministry of Gender and Development together with the United Nations Mission in Liberia and iLab_Liberia trained girls on **how to write programs using Python programming language.**

Learn coding online	❖ **Code.org** ❖ **Codecademy** ❖ **Khan Academy** ❖ **Mozilla Webmaker** ❖ **Made with Code**

You don't necessarily need computers, tablets or internet in order to learn computer science! Checkout the unplugged activities from Code.org http://code.org/learn **and from Computer Science Unplugged** http://csunplugged.org/

✓ Animation & Games

In Serbia, girls visited the University Science Club and were introduced to Scratch, a free programing tool to **create games, animated stories and interactive works of art**. At Oracle Academy events in Australia, India, Indonesia, Malaysia, and Sri Lanka, girls **created animations, simple educational games and videos to share on the web by using Alice,** a 3D programming environment.

Online tools to create games and animations	❖ **Scratch** ❖ **Alice** ❖ **Kodu Game Lab** ❖ **Stencyl**

✓ Programming robots

By introducing girls to robotics, you give them a chance to experience the future. In Nigeria, Eko-Konnect organized a robotics workshop, where girls learned how to **write and run simple programs to make a Finch robot carry out tasks** including movement, altering LED display, announcing the current room temperature and using the robot as a gaming console. Girls learned the **basics of robotics with LEGO NTX robots and experimented with the functions of sensors and programming** in Malta at an event organized by Malta Information Technology Agency.

Hardware to experience with robotics or build your own robot	❖ **Arduino** ❖ **Lego Mindstrom** ❖ **Raspberry Pi** ❖ **LittleBits** ❖ **SPRK +** ❖ **Dash & Dot** ❖ **Finch Robot**

Check also Instructableshttp://www.instructables.com/tag/type-id/category-technology**for fun technology projects!**

✓ Digital video production & digital art works

Let girls use technology as a tool to express their creative and artistic side. In Nigeria at W.TEC Girls Technology Camp, girls created **digital artwork designs by using Corel Draw and short films by using Microsoft Movie Maker.** In Portugal, Fundação Portuguesa das Comunicações challenged schools, colleges and universities to **create digital works on the impact of the digital revolution on future jobs and the importance of increasing the number of women in ICT.**

Programs for creating digital videos and art works	❖ **Gimp** ❖ **Inkspace** ❖ **Scribus** ❖ **Avidemux** ❖ **Corel Draw** ❖ **Glogster**	

✓ Experiencing 3D printing

Girls saw a 3D printed item with their own eyes in Guatemala at an event by Superintendencia de Telecomunicaciones in which the prize of the event's contest **was a trophy printed with a 3D printer**. In Poland Perspektywy EducaGon Foundation gave the girls the opportunity to learn **how to produce a high-heeled shoe straight from the 3D printer.**

✓ Blogging

Blogging is a great first step in learning how to use technology as a platform for self-expression. In Nigeria, Youth Initiative for Sustainable Human Development organized training for girls on **how to build a blog site with WordPress**. In Nepal, during an event organized by G-Hackademy, girls learned how to blog in a *blocgathon* and started their own blogs, e.g. on role of ICT in empowering women.

Blogging platforms	❖ **WordPress** ❖ **Tumblr** ❖ **Blogger**

✓ Digital skills training

For girls with less experience with computers, Girls in ICT Day is a great opportunity to organize basic training on digital skills and make girls more confident with computers. In Ethiopia, at an event by the ITU Regional Office for Africa, girls acquired basic computer skills and learned how **to open their own email accounts.** Basic digital skills

training was also given in Nigeria, where girls participated in an **introductory session on computers, with a focus on Microsoft Word** at an event by Digital Peers International**.**

✓ **Taking computers apart**

Understanding technology means not only understanding how to use it, but also how it works. Taking apart old computers and going through the different parts is an exciting and informative activity to show girls how a computer is constructed. In Kenya, at Eldoro High School, girls got to see how a computer works from both the inside and the outside. The inside was demonstrated by two girls who **took apart a computer's internal components and then reassembled them, connected the BIOS devices and booted up the computer.**

2. Open days at an ICT company, government agency, university or any ICT-related institution

Open days are another excellent way to celebrate Girls in ICT Day. ICT companies, departments, government agencies, universities and research facilities around the world have opened their doors to girls on Girls in ICT Day. Contact local schools and invite the girls for a fun and instructive day. You can introduce the girls to your organizations' work and show them some exciting "behind the scenes" places, such as laboratories or R&D centres. **Try to avoid long presentations and always when possible include interactive and hands-on activities.**

Meeting and hearing from female role models is important when visiting ICT-related organizations. Girls tend to be sensitive to subtle cues and seeing only men in the organization might have a bigger influence on them than anything you say. **Make sure girls see and meet many female staff members and get a chance to talk with them.**

3. Competitions

Competitions can help girls see ICTs in a whole new light and engage them in hands on activities. There are a number of possible types of contests to organize for Girls in ICT Day, based on the age group targeted, among other things. Girls' creative side was sparked, for example, in Gambia, where girls **designed logos** for a competition organized by the Ministry of Information and Communication Infrastructure. In Thailand, the ITU Regional Office for Asia and the Pacific held an **e-poster competition**, in which participants were challenged to think how to convince girls to get into ICT-related courses and tech jobs, and how to change the male dominated image of the ICT sector. In Brunei, girls got business-savvy by competing in **pitching ideas for a new mobile app** at an event organized by the Authority of Info-communications Technology Industry. Other examples include **contests on the**

presentations girls prepare during the event, quizzes testing how well girls learned the day's topics and essay/blog contests about ICT related topic.

When planning the contest, try to design it in a way that **does not exclude girls with less or no experience with technology.** It is also a good idea to challenge girls to think about how to tackle social or environmental issues with ICTs, showing them that **technology can help you make a difference.**

And don't forget about the prizes! **Reach out to sponsors and use the opportunity to equip a girl with a tech device that might help her get into ICTs**. In Girls in ICT Day events around the world, girls have been awarded with mobile phones, smart phones, tablets, laptops, laptop bags, and many other technology related items.

4. ICT career fairs

One of the reasons why girls don't choose careers in ICT is that they often lack knowledge about the various kinds of jobs ICTs offer. Girls in ICT Day is a great opportunity to change this by showcasing various ICT professions and widening girls' knowledge about the field.

Invite ICT professionals to local schools or other places where girls can meet and freely talk with them. Make sure to include a wide variety of professions and as many female professionals as possible. For example, in Rwanda, the event organized by Girls in ICT Rwanda began with girls visiting several **"career stations", where they met technology professionals including a computer programmer, a Computer-generated imagery (CGI) artist and a wearable electronics designer.** In Kenya, at an event by AkiraChix, girls got a taste of what work in the different fields of tech entailed by rotating between six stations focusing on **design, entrepreneurship, software development, User Experience (UX) research, tech writing and robotics.**

You can also present schools and colleges that offer ICT programs and invite ICT-related research centers to showcase their latest research.

5. Meeting and hearing from female role models

Meeting and hearing from role models that girls can relate to is invaluable in sparking their interest in ICTs. You can invite female ICT professionals to share information about their career paths, professional and personal life, and why they think ICTs are interesting. This can mean discussions in small groups, inspirational talks or round table discussions. **Try to avoid lecturing and let girls ask questions freely.**

You can also use the video messages recorded by role models from around the world hosted on the ITU Girls in ICT Portal. In these short videos, female ICT professionals talk to Girls in ICT Day event participants inspiring and motivating them. **If you are a role model yourself and would like to share your message with Girls in ICT Day event participants, please contact us!**

Shadowing a woman in ICT for a day or number of days is another great way to show the girls first-hand what a career in ICT can entail and let them exchange ideas with the person they are shadowing. You might also want to consider launching mentoring programs. However, bear in mind that a mentoring initiative is a longer commitment that does not last only one day. Read more about yearlong initiatives in the *Let's go beyond Girls in ICT Day* section.

More ideas for ITU Member States

Government authorities may consider encouraging stakeholders across the country to hold events, reaching out to all schools, universities, private sector companies and NGOs. Others may organize a central celebration, inviting girls from across the country to participate in person or virtually. The central celebration can consist of a seminar for students and teachers, media event, conference on ICT for girls, career day, hackathon or mobile app competition, or any one of the activities listed above. You can also link all local initiatives by establishing a unified visual identity and developing a comprehensive media strategy. **This is a great opportunity to raise awareness throughout your country.**

In Senegal, for example, the Ministry of Communications and Digital Economy organized a range of activities to celebrate International Girls in ICT Day **with an overall outreach to 11,000 girls.** The activities included **training sessions on web development, open days at ICT companies, launching Girls in ICT clubs in schools, panel discussions, a competition, and television and radio discussions.**

In Germany, the Federal Ministry for Family Affairs, Senior Citizens, Women and Youth, and the Federal Ministry of Education and Research fund the **Girls' Day campaign** (http://www.girls-day.de/), in which technical enterprises, enterprises with technical departments and technical training facilities, universities, and research centres are invited to organize an open day for girls. In 2016, **there were nearly 1100 ICT-oriented events for 14,500 interested girls.**

TIPS FOR MAKING YOUR EVENT A SUCCESS!

Showcase your event as part of the global effort. Check the **ITU Girls in ICT Portal** (https://www.itu.int/en/ITU-D/Digital-Inclusion/Women-and-Girls/Girls-in-ICT-Portal/Pages/Resources.aspx) for resources and promotional materials, such as flyers, logos and banners. You will also find video messages from the ITU Secretary General and Director of the Telecommunication Development Bureau, which you can show at your event as well as videos from female role models from around the world.

ITU Girls in ICT Portal also hosts a gallery of write-ups, pictures and videos from previous Girls in ICT Day events (https://www.itu.int/en/ITU-D/Digital-Inclusion/Women-and-Girls/Girls-in-ICT-Portal/Pages/Girls-in-ICT-Day-events.aspx). These are a treasure-trove of inspiration. Keep in mind that we look forward to adding your event!

Attract and retain partners and sponsors. Reach out to local stakeholders such as Government authorities, ICT companies and other ICT-related entities for financial and in-kind support. They might even want to partner and jointly celebrate Girls in ICT Day! Apart from financial support, they can also assist with realizing many other aspects of your event including designing and printing materials, food, technical equipment, resources for the workshops, and prizes for your competitions.

Use technology. Make use of ICTs to increase the outreach of your event, give girls their own voice and attract international participants. This can mean web or videoconferencing connecting girls across the country or connecting to Girls in ICT Day events in other countries. You can also organize a Twitter chat, Google+ hangout or e-debate on ICT related topic. In addition, through blogging and digital filmmaking, you can encourage girls to have their own voice in sharing their experiences. Some remote participation tools include:

- o Web conferencing (Cisco WebEx, Adobe Connect): This will allow you to share your event with remote locations using your own computer and an internet connection.
- o Videoconferencing (Cisco TelePresence): Requires dedicated hardware solutions to link many physically separated rooms around the world so they resemble a single conference room regardless of location.

You may be able to find free remote participation tools or partner with ICT companies, requesting in-kind support from them to use their services.

Take full advantage of social media. Create your own social network page and post about your event on our **ITU Girls in ICT Facebook** page

facebook.com/ITUGirlsinICTsharing your plans and discussing ideas already before the Day. Also encourage girls to share their experience on social media. Hashtags are a great way to promote your event and group the discussions on social media. Use the hashtag **#GirlsinICT** when posting related content (posts with #GirlsinICT will also be featured on ITU Girls in ICT portal at www.itu.int/girlsinict). You can also create your own hashtag to use alongside with #GirlsinICT.

Get feedback and testimonials from the participants. Make sure to ask girls to share their thoughts on the Day's activities, ICT careers and studies, and whether the day helped them to expand their horizons. This feedback will be helpful in developing your event the following years as well as in getting sponsors and partners. Collecting testimonials is an excellent way to demonstrate the impact of your event.

Feel free to use the feedback survey we have developed, which is available for download at https://www.itu.int/en/ITU-D/Digital-Inclusion/Women-and-Girls/Girls-in-ICT-Portal/Pages/Resources.aspx. Please also share with us relevant feedback and girls' testimonials!

A picture is worth a thousand words. Take pictures and make videos of your events, getting parental permission as needed. This will be useful for your promotional and reporting efforts. Don't forget to send us the pictures along with a write-up of your event so that we can feature your events on ITU Girls in ICT Portal.

Give the girls something to take home. At the end of the day, the girls should go back home with materials that help them get more involved with ICTs. This can mean a list of online exercises they can continue doing at home or contact details of local organizations and networks holding tech workshops/camps and summer programs as well as universities with relevant degree programs.

Also try to give every girl **a certificate of participation**. Receiving a certificate will boost their confidence, demonstrating that they've been part of something special and ready to take the next step towards a future in ICTs.

LET'S GO BEYOND GIRLS IN ICT DAY

The activities and events organized to celebrate Girls in ICT Day are invaluable in empowering and encouraging girls and young women to consider careers in ICTs.

However, we know that not everything can be achieve during one day. It is therefore essential that Girls in ICT Day events encourage organizers to explore possibilities for more continuous yearlong activities.

Some ideas to explore:

- ✓ Launch **after school clubs** for girls focusing on ICT skills development, e.g. coding clubs
- ✓ Include **computer science classes in school curriculum** and encourage their selection as electives, e.g. by recognizing computer science as a science requirement
- ✓ Create an **inclusive learning environment** for introductory classes in computer science and select curriculum that that will engage students who are new to computing
- ✓ **Organize joint events**, such as hackathons and tech camps, together with schools, universities, ICT companies and institutions
- ✓ **Create associations and networks** for girls and young women interested in ICT and **connect them to existing networks**
- ✓ **Launch mentoring initiatives** connecting girls and young women to local role models
- ✓ **Provide STEM scholarships** for young women
- ✓ **Launch ICT internship programs** targeted for young women

International Girls in ICT Day event is a great opportunity to launch a new yearlong initiative. For example, in Liberia ISOC-Liberia Chapter used the occasion to launch an ICT Mentoring initiative for women, and in Cameroon, Association @juris.tic launched ICT-clubs on Girls in ICT Day.

You can partner with other ICT organizations to implement these efforts. See the list of ICT-related organizations on Girls in ICT Portal at https://www.itu.int/en/ITU-D/Digital-Inclusion/Women-and-Girls/Girls-in-ICT-Portal/Pages/Links-to-related-organizations.aspx to find possible partners.

Please be sure to register for the Girls in ICT Portal and upload your programme so that we can help spread the word about your activities.

Wishing you a successful celebration of International Girls in ICT Day!

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