Advancing the human rights of girls and women
In science, technology, engineering and mathematics (STEM)

Activity Report 2020

Geneva, Switzerland
RightsTech Women (RTW) is a nonprofit association founded in June 2018, and is based in Geneva, Switzerland.

The mission of RightsTech Women is to advance the human rights of women and girls in science, technology, engineering and mathematics (STEM). RTW works to get more girls and women in STEM education and employment by 2030 through research and data visualization, UN advocacy and human rights education and training, and STEM capacity building.

This activity report covers the period of January-December 2020.

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EDITORIAL: 2020 - A year of resilience

What can we say about 2020? We:

- survived - individually and as an organization;
- started to make videos and created a YouTube channel: https://youtu.be/b7kcx8wSg-4 (EN) and https://youtu.be/0zSXj4_fpl (FR);
- set up a crowdfunding;
- became EU Codeweek ambassadors for Switzerland;
- accelerated our process to work remotely and deliver online trainings;
- organized online events for teachers and the general public to teach some fundamentals of data processing with Python;
- unfortunately could not deliver in-person trainings in 2020, and we greatly missed doing this. But, we followed health and safety regulations;
- were honored as a Finalist in the International Telecommunications Union’s global Equals Awards 2020, in the category of Leadership in Technology; and,
- launched key new processes on fundraising and finance to continue to build a strong institution, with the help of excellent partners.

If it was not obvious before, 2020 made it clear just how important STEM education and employment are: life-saving vaccines, real-time sharing of information, the ability to understand exponential growth of COVID-19 infections, making decisions based on science - STEM was everywhere around the world in 2020. The world changed, yet many pre-existing inequalities and prejudices were more starkly exposed. Some problems got worse. Negative impacts of COVID-19 for many women in employment will take time to mitigate, adding to the inequality elimination to-do list. However, we are up to the challenge, equipped with new skills and perspectives.

Like others, RightsTech Women navigated the wild journey that was 2020 by using our resiliency skills and coping mechanisms - and here we are, grateful to be able to write this report today. We would like to honor all of those who lost their lives to COVID-19 in 2020 by not minimizing the pandemic’s impact or its potential to claim other people’s lives still: at the time of writing, the vaccine is not yet available everywhere in the world and sadly, many more people will not survive this preventable illness. There is no fix for that injustice. Although we might want to put 2020 behind us, we should not forget the important lessons of 2020, which each learned for themselves. Employers also should carry forward the pandemic lessons learned, to make more diverse and inclusive workplaces. We also honor the strength and resilience of everyone in our community and beyond, including the learners of all ages, and parents, who met new challenges, kept going, and kept learning, taking pauses when needed. We hope 2021 and the next years bring more health and wellbeing to everyone around the world. We will meet what comes next together and continue to try to build bridges.

If you are just now discovering RightsTech Women and you wish to support RTW’s mission and work, you can find more information about that on page 7 of this report.

Sincerely,

-The RTW Board
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THREE PILLARS OF WORK

RightsTech Women has three pillars of work: (1) Research and Data Visualization, (2) UN Advocacy and Human Rights Education and Training, and (3) STEM Capacity Building.

Research and Data Visualization
RightsTech Women conducts research on girls and women in STEM education and employment and other relevant metrics. Here, we share a few key points about why it is important to reduce inequality for girls and women in STEM.

Today, there is a widespread global gender inequality, with less than a third of the world’s technical workforce being women\(^1\) and women earning on average 20 percent less per month than men across all sectors.\(^2\) Inequality is at risk of worsening: the need for STEM skills in the job market is increasing rapidly but the pace towards equal representation is slow and in some cases, even going backwards.

- 65% of children entering primary school today will end up working in job types that don’t yet exist.\(^3\)
- 75% of jobs will require STEM skills of some kind in the next decade.\(^4\)
- Less than 15% of data scientists are women despite job growth in this field.\(^5\)

STEM gender inequality not widely viewed as a human rights issue
To solve this adequately, women’s global underrepresentation in STEM must be understood as a human rights issue, linked to existing international human rights standards and countries’ obligations. If not, rights will continue to be infringed. The United Nations and its Member States have, in the Sustainable Development Goals (SDGs), recognized the problem of gender inequality, specifically in ICT education, employment and innovation and set targets for the year 2030. This is good but not sufficient to achieve lasting change without concerted action for STEM gender equality, improving the situation for women in all STEM areas.

To achieve sustainable STEM gender equality, it is conjointly necessary to attain equality in STEM education and employment, along the different STEM career paths.

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\(^3\) The future of jobs, World Economic Forum (2016).
Education: Globally, only about 31.5% of graduates from STEM-related fields are women and most higher-income countries fall far below the average.  

Research: Only 30% of all researchers worldwide are women.

Leadership and entrepreneurship: Only 28% of startups have a female founder in their founding team. Venture capital (VC) funding to women-led startups decreased in 2020, while it increased for men, with only 2.3% of VC funding going to female-led startups in the U.S.

If we do not act, the inequalities will continue and worsen.

- Because of COVID-19, reducing the gender equality gap is predicted to take an additional generation, going from an estimated 99.5 years to 135.6 years.
- Girls and women lose important possibilities for self-sufficiency and independence, wellbeing, education, and are at greater risk of being more consumers rather than creators of technology.
- Even if we doubled venture capital funding to women, in some places, it will still be under 5% of venture capital invested in that country. How can we reach equality by 2030?
- STEM gender inequality creates economic losses for companies, national economies and global GDP: companies will continue to lack diverse teams who could make more informed and profitable decisions, and inclusive services and products.
- Human rights and technology will not keep pace, resulting in worse technology and less safe and sustainable societies.
- The global gender equality agenda misses STEM skills that it needs to be successful.

UN Advocacy and Human Rights Education and Training

Outreach and Advocacy

In 2020, RightsTech Women created a YouTube channel and made a first video about our work: https://youtu.be/b7kc8x8wSg-4 (EN) and https://youtu.be/0zSXj4_fpl (FR).

RightsTech Women participated in a number of meetings focusing on girls and women in technology.

- During the Internet Governance Forum, Ellen Walker participated in an online discussion, 'Safe Digital Spaces: A Dialogue on Countering Cyberviolence', and shared information and resources about the panel (see https://bit.ly/3cZgCnY).
- International Telecommunications Union’s Equals in Tech Awards 2020 on November 6 2020, where RightsTech Women was recognized as a Finalist in the category, Leadership in Technology
- ITU Equals session, Digital livelihoods support and remote coaching with extremely poor and indigenous women, 24 November 2020

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7 UNESCO UIS 2019.
8 Women in Technology Leadership 2019, Silicon Valley Bank.
10 World Economic Forum 30 March 2021.
● ITU Equals session, Advancing Women’s Digital Financial Inclusion: best practices and challenges of 5 leading MFIs in Latin America, 17 September 2020
● ‘Ensuring young women feel safe and included in online platforms’ on 10 September 2020.
● ‘Gender divide and internet access findings from nationally representative household surveys in Colombia, Ghana, Indonesia and Uganda’ on 2 September 2020
● Equals Access Learning session, 'Women’s digital inclusion in Latin America: Challenges and opportunities' on 26 August 2020
● Equal Pay International Coalition (EPIC) online launch of the first International Equal Pay Day
● Founder Ellen Walker spoke as a panelist about being an EU Code Week ambassador for Switzerland and about RightsTech Women, in a webinar of @libraries2030 during EU Code Week.

In the news
The publication, Geneva Solutions, interviewed RightsTech Women’s Founder, Ellen Walker, in the article ‘Coding the way to empowerment’, 14 Oct. 2020, available at: https://genevasolutions.news/technology/coding-the-way-to-empowerment. In the interview, she explained why RightsTech Women was created, why it was so important for girls and women to learn STEM skills, and how RightsTech Women’s solutions bring technology and human rights together.

Advancing Sustainable Development Goals
RightsTech Women’s research, advocacy and STEM capacity building of girls and women in STEM and human rights advances Sustainable Development Goals 4 (Quality Education), 5 (Gender Equality), 8 (Decent Work and Economic Growth), 9 (Industry, Innovation and Infrastructure) and 10 (Reduced Inequalities).
STEM Capacity Building

*New training content and online delivery via Zoom*

RightsTech Women gave workshops first to teachers (23 October 2020) and then to girls (on 12 December 2020), on basics of data science and Python programming, using an activity developed by Ellen Walker with contributions by Hannah Short (CERN Women in Technology) and RTW Board Member, Brice Copy. The training for girls took place on a Saturday and RightsTech Women and its volunteer technical coaches welcomed girls in two sessions, one in English and one in French. The activity not only introduced girls to data science and Python programming but also to famous women in science, giving them role models and sharing the message that it is normal and fun for women to work in science. RTW trained the coaches in advance and distributed supporting learning materials to participants. For more information, see [https://bit.ly/35Dni74](https://bit.ly/35Dni74) and [https://bit.ly/3wQRKxy](https://bit.ly/3wQRKxy).

*Code Week and Women in Science*

RightsTech Women shared information via its website and social media about EU Code Week, to inform teachers and parents around Europe and beyond how to organize their own activities and encourage girls and women to code. For more information, see https://bit.ly/3wKh3dL. On 13.10.2020, RTW presented RTW and an open-source Python programming activity featuring women in science to libraries at an event with Libraries 2030 and Code Week. RightsTech Women promoted relevant International Days, like Women in Science Day and the first International Equal Pay Day.

FINANCE
RightsTech Women was created in 2018 as a nonprofit association with its legal headquarters in Geneva, Switzerland.

Despite the difficult year due to COVID-19, we have doubled our reserved funds. We were able to reduce our liabilities which will put us in good standing for the upcoming year. For the complete financial statement, please do not hesitate to contact us.

Income statement for the period ended 31 December 2020 (in Swiss Francs)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2019</th>
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<tbody>
<tr>
<td>Revenue</td>
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<td>Operating expenses</td>
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<td>2'511</td>
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<td>Net result for the period</td>
<td>1'590</td>
<td>335</td>
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Balance Sheet (in Swiss Francs)

<table>
<thead>
<tr>
<th></th>
<th>2020</th>
<th>2019</th>
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<tbody>
<tr>
<td>Total assets</td>
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<td>3'603</td>
</tr>
<tr>
<td>Total liabilities</td>
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<td>2'499</td>
</tr>
<tr>
<td>Total reserve funds</td>
<td>2'694</td>
<td>1'104</td>
</tr>
<tr>
<td>Total liabilities and reserve funds</td>
<td>2'754</td>
<td>3'603</td>
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THE WAY FORWARD

Scaling up - Where RTW is headed
Currently in its growth stage, RightsTech Women’s strategic plan for 2021-2026 includes fundraising and hiring, scaling up, achieving measurable growth in female learner numbers, and in their learning outcomes and career intentions. RTW is building its programs in its three areas of work.

To support stakeholders’ informed decision-making, RTW continues and builds its research and data visualization. RTW is working to build a network of girls and women trained in STEM skills and human rights in 33 countries, along with a self-sustainable, critical mass of trained educators and coaches in partners’ communities who can and do keep delivering hybrid STEM and human rights training and advocacy. RTW is building its program to raise awareness of STEM professionals and stakeholders of the international human rights standards relevant to girls and women in STEM. As well, RTW will
work to introduce women in STEM to UN mechanisms, and to support them in effective participation in those mechanisms with a view to reaching equitable STEM solutions by 2030.

**ORGANIZATION**

**Board**

RTW’s board consists of 5 members with diverse educational and professional backgrounds, including law, technology, physics and teaching.

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<th>Photo</th>
<th>Name and Title</th>
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<tr>
<td><img src="image" alt="Ellen Walker" /></td>
<td>Ellen Walker, Founder and President (Human rights lawyer)</td>
</tr>
<tr>
<td><img src="image" alt="Prachi Bhave" /></td>
<td>Prachi Bhave, Board Member (Engineer and data analyst)</td>
</tr>
<tr>
<td><img src="image" alt="Alexandra Schafhauser" /></td>
<td>Alexandra Schafhauser, Board Member (Lawyer specialised in Law and Economics)</td>
</tr>
<tr>
<td><img src="image" alt="Brice Copy" /></td>
<td>Brice Copy, Board Secretary (Software engineer)</td>
</tr>
<tr>
<td><img src="image" alt="Makoto Ikeda" /></td>
<td>Makoto Ikeda, Treasurer (Physicist)</td>
</tr>
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Meet the Team: https://rightstech.org/meet-the-team/

Video: https://bit.ly/3nM01rg

**Auditor**

Auditing services are provided by PricewaterhouseCoopers Switzerland.
PARTNERS
In 2020, RightsTech Women collaborated with CERN Micro Club and CERN Women in Technology.

Our generous donors of funds or in-kind assistance in 2020 included Commune de Dardagny, the EU Delegation to the UN and other International Organizations in Geneva, Fidolea, Jenneve Digital, PricewaterhouseCoopers SA, as well as individual donors.

Thank You
RTW sincerely thanks all mentioned above for their fruitful cooperation and for their commitment to STEM gender equality.

DONATE
RightsTech Women advances the human rights of girls and women in STEM education and employment.

Your donations are essential to help us to increase the numbers of girls and women in STEM education and employment, and to make sure that they know their rights. Help us to grow our impact with a donation of any amount.

To make a direct bank transfer, please use the following bank details.

Account holder: RightsTech Women  
Bank: PostFinance  
IBAN: CH51 0900 0000 1514 4552 2  
Account no.: 15-144552-2  
SWIFT code: POFICHBEXXX  

Or donate by PayPal:

[QR Code Image]