MEDELLÍN
Valle _del
software

Educational STEAM
initiatives for women

In the Fourth Industrial Revolution, women risk being left behind in the STEAM fields that group science, technology, engineering, arts and mathematics programs, because there is a tendency for them to be underrepresentated in these fields (Tulivuori, 2021)[1]. In contrast, women tend to focus on management careers; an example of this is shown in the results of the 2021 study of the labor market carried out by the OdeS (Observatorio de Sapiencia), which showed that 21 % of the graduates of the HEIs in Medellín were women who studied engineering and architecture programs compared to 46.36 % of men.

Various initiatives have been created to help increase the number of women in technological professions, these initiatives include resources, networks and events to stimulate their entry or permanence in the technological world.

Some of these initiatives and their approaches are summarized below:

AT THE INTERNATIONAL LEVEL there is a wide variety of initiatives available in English, in which a network of women experts is created in different countries, some have chapters (local communities) in Colombia and others do not, but it is possible to have a membership and access some events, programs and networks for free:

Women in data
www.womenindata.org

Created in 2015 in the United Kingdom, its purpose is to support women at each stage of their technological career by building a community of close and empowered women through events, training programs and classes focused on awakening and fostering curiosity about data in girls from 12 to 14 years of age.

It has programs for individual members or for communities, which include tutoring programs, residence, study groups, among others.

Women in AI
www.womeninai.co

Created in Paris, France in 2016 it has become a community that seeks to empower women and minorities to turn them into experts innovators and leaders in A.I. and data. Among their services, they offer training programs, tutoring, workshops and research.

Women in Tech
www.women-in-tech.org

International nonprofit organization, whose purpose is to close the gender gaps by promoting girls and women's empowering with a focus on the 5th SDG: to benefit from technologies. Among its programs, mentorship programs stand out: one focused on promoting women in technology and the second aimed at women in the government.

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[1] **Tulivuori J.,** (November 19, 2021). How 21st century skills in secondary school can bridge the gender gap. LSE blog. Retrieved on 02/28/2022

https://blogs.lse.ac.uk/businessreview/2021/11/19/how-21st-century-skills-in-secondary-school-can-bridge-the-gender-gap/

AT THE NATIONAL LEVEL some initiatives have been created from the government and the private enterprises to encourage the participation and vocation of Colombian women in these.

Mujer + Ciencia + Equidad
(Woman + Science + Equity)
www.mujercienciaequidad.minciencias.gov.co

In 2021, the alliance with the Organization of Ibero-American States for Education, Science and Culture (OEI for its acronym in Spanish) and the Ministry of Science, Technology and Innovation of Colombia, created a program made up of OEI courses in STEAM skills, second language, entrepreneurship, project formulation, mentoring and a special internship program focused on research to encourage a scientific vocation in young women and to strengthen their life projects.

Colombian Women in games
www.tangrandeyjugando.com/
woman-in-games-colombia/

The organization *Tan grande y jugando* (Grown up and playing) promotes the participation of women in the video game industry in Colombia, seeking to break the gender gap. They hold the Women Game Jam event: video game creation hackathon.

AT THE LOCAL LEVEL there are initiatives that were created in the city or that are branches of international organizations to promote the training and the technological profession in women of Medellín.

Women who code Medellín
www.womenwhocode.com/medellin
@wwcodemedellin

This community is a local branch of the international organization Women who code, which is recognized for its history and importance as a global network. Some of their services include coding resources, leadership, networking and events, job agencies, scholarships, and more

Pioneras Dev
www.pionerasdev.co/

It is a technological community that focuses on reducing the gender gap in the world of technology, providing its services to companies and schools through immersion programs such as Pio Camp, that lasts 12 weeks.

Talento Especializado*
Sapiencia
*Specialized Talent
www.sapiencia.gov.co

Sapiencia offers the *Talento Especializado* program that is focused on short modular courses in areas related to digital industries, and that includes digital skills teaching, English language, as well as a productive challenge with companies. Likewise, a dissemination and awareness strategy is carried out to promote women's access to post-secondary education programs. Currently, according to the OdeS between 2020-2021, 40% of people enrolled in the program are women.

The incorporation of these women represents an achievement for the city in two ways: first, the possibility of including this population group in training processes, and with this, the increase in their possibilities of entering the world of work; and second, it supposes a concrete way of contributing to the achievement of the objectives of El Valle del Software from the qualification of the human talent of Medellín, District of Science, Technology and Innovation.

Remarkable fact: Women from El Pedregal prison have received this program in three training routes: film production, video games and digital marketing.

SAPIENCIA
Agencia de Educación
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