Houston Area Model United Nations Standard Committee

CSW

AMU

Co-Chairs | Rida Qazi & Isabella Gabrilska Topic B: Addressing the gender gap in Artificial Intelligence Houston Area Model United Nations 50 February 6 & 7, 2025

Note to Delegates

Delegates,

In 1947, soon after the founding of the United Nations, did The Commission on the Status of Women meet. In its early days, CSW was responsible for holding international conventions that challenged an era of discriminatory legislation and gave limelight to women's global issues. In today's world, the organization faces an ever-increasing demand for its services due to ongoing and escalating conflicts in various regions. CSW is a platform that strives to promote women's rights, document women's lives, and shape global standards, and this Background Guide has been forged for your assistance in researching the critical work of this organ.

The point of using a Background Guide is to use well-established facts and content in order to form a concrete case. Instead of using non-credible sources, this Background Guides aids in the composition of feasible resolutions that have the ability to create change in the lives of women across the globe. We hope this will set you on the journey of finding your own unique, position-conforming solutions, and we look forward to hearing the ideas you present at the conference in February! Please feel free to reach out to us with any questions.

Best wishes, **Rida Qazi** Chair of CSW <u>rsqazi@cougarnet.uh.edu</u>

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Commission on the Status of Women ² Co-Chairs | Rida Qazi & Isabella Gabrilska **Houston Area Model United Nations 50** February 6-7, 2025

Executive Summary

Women make up only 22% of AI professions globally, leading to biased AI systems that reinforce existing gender inequalities. This lack of diversity limits the fairness and effectiveness of AI technologies, such as facial recognition and hiring algorithms, and risks deepening societal inequities.

A call to action focuses on promoting STEM education for women, fostering inclusive workplaces, and developing bias-free AI systems. Global initiatives led by organizations like UNESCO and UN Women aim to close the gap through mentorship and advocacy. By prioritizing gender diversity in AI, we can create more equitable and unbiased technologies for all.





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Conceptualization

Ever since the start of AI, women have become heavily underrepresented in this area, largely due to a lack of access to proper STEM education. This underrepresentation contributes to a significant lack of diversity in the field, resulting in biases within the technology itself and limitations in its usability for broader populations. AI systems often reflect the perspectives of their creators, which can perpetuate gender, racial, or cultural stereotypes. To combat this, it is essential to implement targeted programs that encourage women to pursue STEM careers, starting with early education and mentorship opportunities. Additionally, creating inclusive workplaces that prioritize equal opportunities and diverse leadership can help retain women in AI fields. By addressing these structural barriers, we can reduce bias in AI technologies and ensure that they are developed to be fair, ethical, and beneficial for all of society.

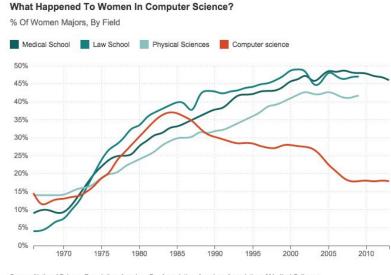


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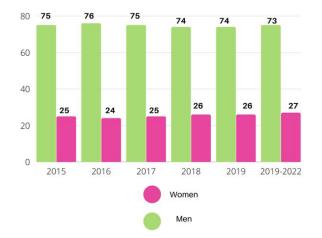
A Brief History

The history of the specific topic of the gender gap in artificial intelligence (AI) reflects much broader societal discrepancies in STEM fields. Many women have laid out foundations for this male-dominated field. BUt as time went on, many more women were marginalized in this field, making it not as common for women to take part in STEM occupations.

As shown in this image, women were in STEM fields, but the highest point where women dominated STEM fields would be from 1980-1985. In AI, this exclusion became more prevalent, with fewer women entering research, engineering, or leadership roles. The rise of AI systems exposed harmful biases rooted in this lack of diversity, sparking calls for equitable education, representation, and policy changes to close the gender gap.



Source: National Science Foundation, American Bar Association, American Association of Medical Colleges Credit: Quoctrung Bul/NPR



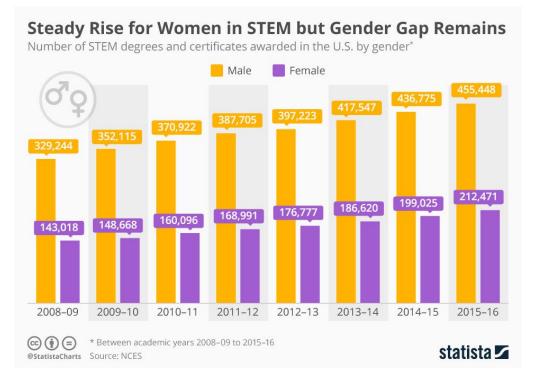
MUN

As shown in this chart, there is a huge gap between the amount of women in STEM vs the amount of men in STEM.

Previous Actions Taken

UN/GA/70/1: Includes Goal 5: Achieve gender equality and empower all women and girls, which applies to advancing equality in technology and STEM fields, including AI.

UN/RES?70/125: "Outcome Document of the High-Level Meeting of the General Assembly on the Overall Review of the Implementation of the Outcomes of the World Summit on the Information Society"

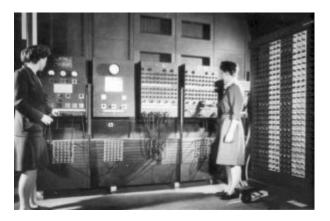




Case Examples (1)

Frink, Brenda D. (1 June 2011). "Researcher reveals how "Computer Geeks" replaced "Computer Girls"". *Gender News*. Stanford University. Archived from the original on 12 March 2015. Retrieved 22 October 2018.

The article discusses how the term "computer girls" was used in the early days of computing to recognize women's contributions. Over time, it was replaced by "computer geeks," reflecting the growing male dominance in the field. This shift in terminology underscores the broader societal trends and challenges women faced in maintaining visibility in the computing industry.



The ENIAC Girls



Advertisement in the 1960's targeting women for replacement by technology



Case Examples (2)

Alghamdi, Fayiq (2016). Women in computing in Saudi Arabia. Proc. 3rd ACM-W Europe Celebration of Women in Computing. pp. 1–3.

- In his 2016 paper, Fayiq Alghamdi discusses the growing involvement of women in computing in Saudi Arabia. He notes that women make up 59% of computer science students, which is higher than in many Western countries. This trend is influenced by cultural factors, as computing is seen as a suitable field for women. However, Alghamdi points out challenges like a lack of female role models in the field, which can hinder women's progress. He calls for policies and mentorship programs to support and encourage women's continued involvement in computing.





Case Examples (3)

J. McGrath Cohoon. 2002. Recruiting and retaining women in undergraduate computing majors. SIGCSE Bull. 34, 2 (June 2002), 48–52.DOI:https://doi.org/10.1145/543812.543829

 J. McGrath Cohoon's 2002 paper discusses strategies to recruit and retain women in computing majors. She suggests outreach programs for high school students, mentorship from role models, and curriculum changes to make computer science more inclusive. These efforts aim to create a supportive environment for women in the field.



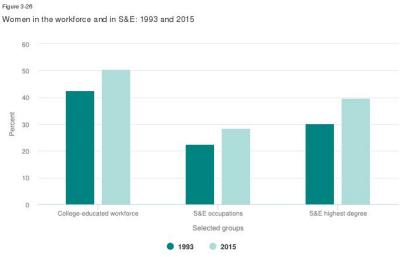
This is an image of the STEM outreach program created by the United States Air Force Academy.



Case Examples (4)

"Characteristics of Scientists and Engineers in the US", National Science Foundation.

- The National Science Foundation (NSF) provides data on scientists and engineers in the U.S., including their demographics, jobs, and earnings. About 22 million people work in these fields, with 5.4 million in computer and math sciences. The NSF also tracks information about those with doctoral degrees in science and engineering.



1993 2015
Source(s): National Science Foundation, National Center for Science and Engineering Statistics, Scientists and Engineers Statistical Data System (SESTAT), https://www.nsf.gov/statistics/sestat/, and the National Survey of College Graduates

(NSCG) (1993, 2015), https://www.nsf.gov/statistics/srvygrads/.

Science and Engineering Indicators 2018



The amount of women in the STEM and Engineering workforce with a 22 year age difference. (1993-2015)

Case Examples Summary

The articles collectively highlight the historical and ongoing underrepresentation of women in STEM fields, particularly in areas like computing and artificial intelligence. They discuss how women were once at the forefront of technological innovation but were gradually marginalized as the field became more male-dominated. Common themes include the importance of improving education and outreach to encourage young women to pursue STEM careers, particularly in computing. Strategies like mentorship programs, curriculum reforms, and creating inclusive work environments are emphasized to support women's entry and retention in these fields. The articles also point out the need for greater diversity in the development of technologies, as a lack of representation can lead to biased systems and limited perspectives. To address these issues, they call for targeted efforts to promote gender equality, ensure visibility for women in STEM, and create a more inclusive, supportive atmosphere for future generations of women in technology.



QUESTIONS TO CONSIDER

- How can a community be created for women in the STEM field?
- What role should governments, educational institutions, and private companies play in addressing the gender gap in AI?
- How can existing AI systems be audited and revised to address and correct biases?
- How do societal norms, educational opportunities, and workplace cultures contribute to these barriers?



Works Cited

- Frink, B. D. (2011, June 1). Researcher reveals how "computer geeks" replaced "computer girls." *Gender News*. Stanford University. Archived from the original on March 12, 2015. Retrieved October 22, 2018, from <u>https://commons.stanford.edu</u>
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