

Description

Despite tall talks about gender equality across streams, there hasn't been a significant rise in the number of women researchers in the **STEM industry**. In the wake of International Women's Day 2021, we would like to discuss the challenges faced by **women in STEM industry** and how can they overcome gender bias.

Underrepresentation of Women in STEM industry

The myth of the math brain is one of the most self-destructive concepts in the education system globally. Several studies and analyses have reported gender bias in STEM-related subjects. Since its inception, the **STEM industry** has significantly underrepresented women. Despite multi-faceted advancements across the globe, the **STEM industry** still lacks women in intellectually challenging positions, let alone in senior leadership.

According to the UNESCO Institute of Statistics fact sheet of 2019, less than 30% of the world's researchers are women. With not as many women researchers in the **STEM industry** already, there also arise some challenges to publish your research as a female author.

Another study conducted by The George Institute for Global Health at the University of Oxford revealed gender bias in research authorship relating to COVID-19. Underrepresentation of women as authors of research papers in many scientific areas is not new to the world.

In this article, we will discuss how you, as a female researcher can overcome gender bias in the process of publishing your research work.

Introduction of STEM Pipeline in Early Academic Years

It is rightly said "As you sow, so shall you reap!". Hence, it is important to give women equal opportunities to pursue and thrive in STEM careers to secure their economic growth. Early introduction of STEM education can instill better understanding of concepts at an early age. Providing adequate and equal training will encourage more women to pursue a career as a researcher in STEM and ensure a diverse and talented STEM workforce.

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One challenge that STEM educators face is to understand how to create lessons that integrate underlying STEM concepts into activities. These activities must be appropriate and effective for specific age groups and development levels.

Ousting Gender Stereotypes in STEM

Bad at Math!

Academic publishing system reports an underrepresentation of women in STEM as authors, reviewers, and editors. Initially, only men were encouraged to pursue careers in the **STEM industry**. The first step to overcoming gender bias in STEM is eradicating the notion that women do not have same mathematical skills as men do. Introducing courses that develop interest for mathematics have to be incorporated in the learning curriculum.

No Work-Life Balance!

Despite contributing significantly to STEM, it is often considered that women are unable to maintain a healthy work-life balance. Post pregnancy and whilst experiencing motherhood, the intellectual capabilities are frequently underestimated. This attitude hampers the growth of diversity in any organization.

Can’t Do Longer Shifts!

The physical strength of women is always associated with the number of hours they can devote to working. Systematically organizing your day would be a better option for everybody, irrespective of their gender. Although, in situations where committed tasks need to be completed in adherence to deadlines, women must take initiative and work for longer shifts to deliver results.

Can’t Lead the Pack!

Taking orders from a woman may have pricked a lot in the past. Growing times have acknowledged and appreciated women in the **STEM industry** for their intelligence, creativity, and contribution. Without a doubt, tenacious women researchers have pushed their boundaries and broke the glass ceiling by achieving leadership positions in their field.

Collaboration with Women in STEM industry

One step that a researcher can take to combat gender bias in STEM and publish his/her research is by collaborating with more women researchers in your field. Jointly working on a research study or co-developing new initiatives in STEM publishing will increase the presence of women and eventually improve diversity.

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Associating with women authors for co-authorship in your paper will also act as a catalyst in overcoming gender bias. Apart from this, networking with women researchers from other universities will also positively affect your research outcomes.

Structure Processes to Evaluate a Submitted Manuscript

Evaluate the quality of a submitted manuscript by setting up a scrupulous and systematic structure. Furthermore, establishment of a committee that represents heterogeneity is important to promote gender parity in STEM publishing. This involves non-disclosure of gender throughout the publishing cycle. Additionally, affiliations to authors must be duly published along with their article as per their contribution and sequence of authorship.

Quick Tips to Overcome Gender Bias in Scholarly Publishing

- Anonymizing CVs in the recruitment process
- Inviting more women researchers as suggestions to journals for peer review
- Encouraging double-blinded peer-review process
- Choosing journals that follow publishing ethics
- Decrease gender pay gap based on success rate
- Focus on equity, and not equality
- Collaborating with renowned women researchers in your field
- Not shying away from male dominance in the workplace
- Encouraging more women to pursue careers in the **STEM industry**
- Promoting women to leadership roles

In conclusion, as gender bias is a serious problem in the world, we are now willfully addressing it and trying our way to have an equity based environment for all genders. Ideally, gender should not be a deciding factor for your intellectual capabilities. Breaking the stereotypes and proving yourself in your field of expertise should be your goal. Furthermore, encourage holistic developmental opportunities for all. Additionally, learn to respect your peers irrespective of their gender. You will only be as successful as the growth on your industry. Subsequently, the contributions made by each entity adds to the growth of an industry.

Do you think gender bias in the **STEM industry** hampers your growth as a scientist? Have you experienced gender bias in your career? Let us know how have you overcome these issues? Feel free to share your thoughts with us in the comments section. You can also visit our Q&A forum for frequently asked questions related to different aspects of research writing and publishing answered by our team that comprises subject-matter experts, eminent researchers, and publication experts.

Category

1. Diversity and Inclusion
2. Publishing Research
3. Submitting Manuscripts

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