International Journal of Gender, Science and Technology
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Editorial

In the opening paper of this issue, Tapan Kumar Basantia and Yengkhom Rameshwari Devi identify gender issues that exist in educational practices of higher education institutions of Northeast India, a region that is disadvantaged, and geographically located in the most remote part of India, particularly in terms of socio-economic, educational and communication infrastructure. Because of this, the Indian government and various state governments in Northeast India have set up institutions for rapid improvements in educational standards leading to significant progression in higher education during recent decades. The study was conducted across six institutions in three states of Northeast India and consisted of a survey of 240 students plus interviews with six public relations officers/ representatives. The paper concludes with some policy implications for achieving gender equity in Northeast India's education system.

In the next paper, Tracey Adams draws on the life course paradigm to determine whether there are gender differences in engineering across age cohorts, in other words have things improved for the newer generation of engineers? Analysing data from a survey and in-depth interviews with engineers in Ontario, Canada, the paper explores whether gender intersects with age cohort to determine experiences of employment, opportunities, and work-family conflict. Although women share some experiences across age – such as concerns about pay and recognition – differences by cohort emerged. Young women are disadvantaged compared to young men and others with respect to securing stable employment in engineering. Older women report more challenges with work-family conflict and have less decision-making authority at work. Interviews further suggest that young women both have it 'easier' and harder than others. The findings demonstrate how the life course paradigm can also be used to shed light on the intersection of gender and age in professions.

Drew Anderson and colleagues take a different starting point in their paper by revisiting traditional definitions of who works in STEM. Most research in this area has relied on top-down categorizations of occupations, typically based on predetermined occupational coding schemes. This study takes a bottom-up approach and directly surveys a national sample of workers in the United States to classify their jobs based on their roles and tasks they perform when on the job. The authors identify workers who are in the 'periphery STEM workforce' who report working in STEM jobs but whose occupations fall outside of top-down STEM classifications. However, following their analysis, the authors conclude that although there are proportionately more women in these roles, there is still a gender pay gap, with women paid less than men in these positions.

Batsheva Guy presents a study based in a US university Biomedical Informatics (BMI) department, a previously understudied field that involves aspects of both biomedical engineering and healthcare informatics. Her project employed Group-Level Assessment (a participatory methodology) with women in the BMI department in order to better understand their experiences, as well as create a salient action plan towards improving those experiences. Isolation, (lack of) inclusivity, and inspiration were three key themes identified through the GLA data. The GLA participants also developed an action plan as a result of the issues that surfaced. Several of the proposed action steps were implemented within six months of the group meeting.

Finally a case study by Maria Erans and Daniel Beneroso also focuses on the educational context and looks at Team-based Learning (TBL) as a pedagogic practice in the teaching of engineering, in particular whether TBL develops consistent teamworking skills across demographic factors such as gender. In this case study, 24 diverse and gender-balanced teams quantitatively assessed the teamwork abilities of their peers using a digital peer-assessment tool after completing a 10-credit TBL module. The results indicate that TBL had no statistically significant impact on prompting the development of teamworking skills for any particular gender group. They conclude that TBL applied to teaching engineering appears to promote gender-inclusive teamwork.

We hope you enjoy reading the papers in this issue. Keep well and stay safe.

Clem Herman, on behalf of the editorial executive: Helen Donelan, Barbara Hodgson, Carol Morris, Stefanie Ruel and Gunjan Sondhi