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Editorial

We start this issue with a focus on a relatively new technology – drones - and a study of gendered employment patterns in the industry that manufactures and distributes them. Recent disruption to air traffic in a major London airport brought the use of Unmanned Aerial Vehicles (UAVs) or drones into international media focus. For a period of 48 hours, frantic searches took place to try to locate the source of a drone that had been spotted at close proximity to the runway, causing hundreds of flights to be cancelled. The very name 'Unmanned' implies a gender normative expectation of the user of such innovation, and is borne out by consumer figures - in the U.S. about 1% of drone sales are to women, and 97-98% of customers are male.

It is perhaps no surprise that this figure is similarly reflected in the employment composition of those who work in the sector. Joanne Kuzma and Kate Dobson's analysis of personnel information on the websites of 112 drone services firms in seven countries found that women were extremely under-represented. They were also less likely to hold technical or managerial roles such as drone pilots or technical managers among all countries surveyed, making it more difficult for women to progress within this sector. Their paper concludes that unless employers work to diversify their recruitment profile, this sector will continue to embed gender inequalities as it expands.

The two papers that follow focus on the educational pipeline, adding more detailed understanding of gender differences in STEM participation at secondary school level, a crucial point at which subject choices can influence future career prospects. In Closing the Gender Gap in Math Confidence, Chardie Baird and Jennifer Reid Keene examine gender and race/ethnic differences in confidence in mathematics ability in the United States. Taking an intersectional approach, they demonstrate that a gender gap exists even among high-achieving high school students, affecting girls' confidence differently to that of boys.

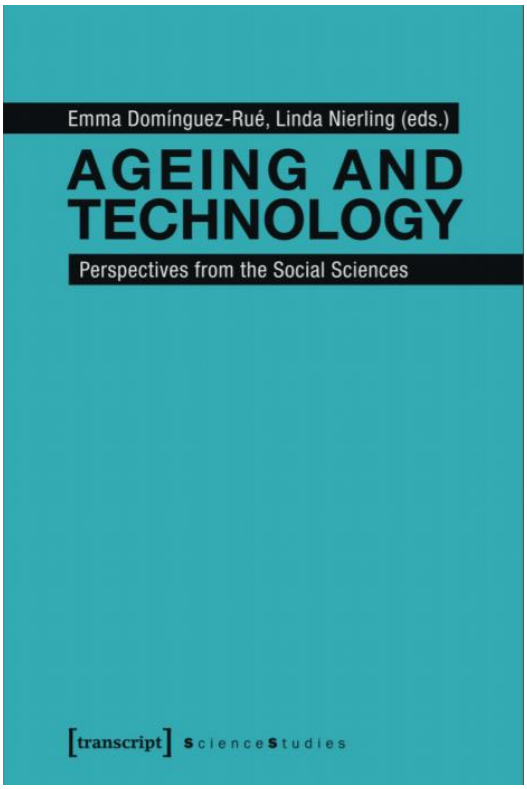
Interventions to support STEM participation have taken many forms. Stacia Stribling and colleagues, in Critically Reading a Middle School STEM Project through a Gender Lens, offer a critical reading to understand better the structures that have complicated female participation in science education, and specifically in the world of gaming. Their study demonstrates a reluctance on the part of the students to disrupt the stereotypes and assumptions that were woven

into the alpha gaming platform they were using. They suggest that creating an inclusive environment in STEM is complicated due to the range of messages, images, experiences, and barriers that young people bring to the learning environment.

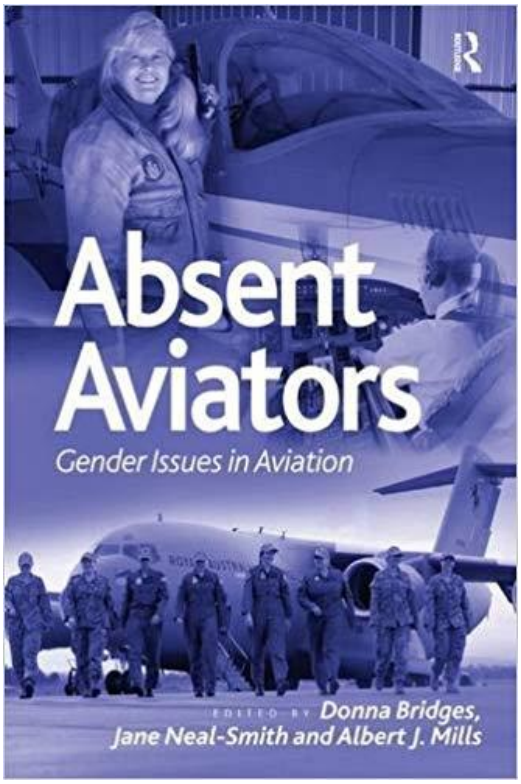
Alison Glover, Stuart Harries, and Martin Jones illustrate another school-based intervention in the case study of STEM Cymru, a project aimed at increasing participation of young women in STEM activities and training in Wales. Their 'Girls into STEM' activity directly targeted girls aged 12-16 years, and successfully challenged stereotypes, resulting in improvement in confidence, and increased participation and awareness of related higher education courses and career routes. Another achievement for the project included participants delivering Science and Technology activities and acting as role models for younger girls in their school following their engagement with the project.

Vivian Vimarlund in Promoting Equity by Gender into the Classroom explores the role of teachers and facilitators within the educational environment. Her case study of a web-based course for Course Assistants that aims to diminish gender bias within the interaction that takes place between Course Assistants and students indicates that participants found it effective. Some students expressed, however, that they were well aware of gender gap problems, because of the society in which they live today and because of the work adopted to promote gender-sensitive teaching at the Institute of Technology. The findings can have a significant impact in identifying innovative strategies when developing courses that aim to implement a gender perspective in the STEM field.

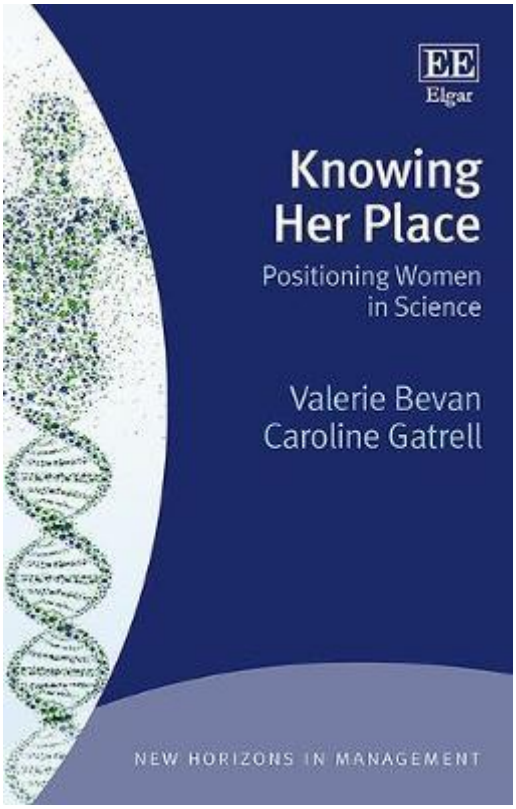
This issue also includes the following book and film reviews:



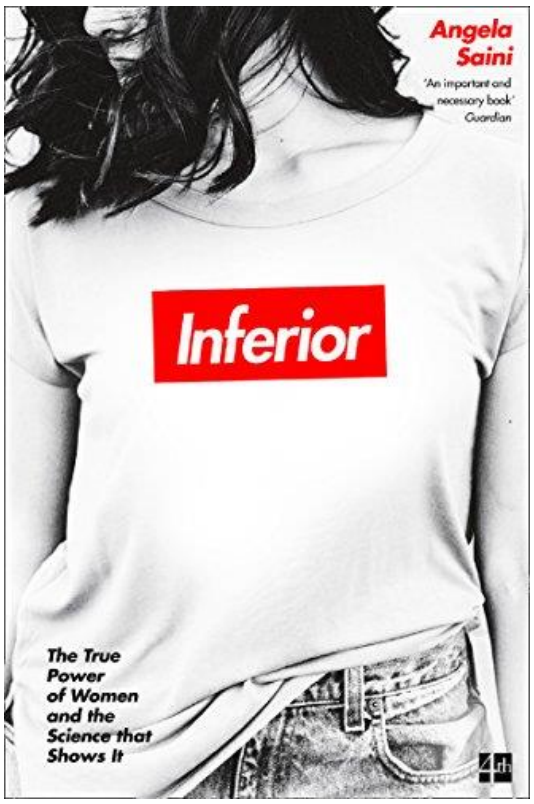
Reviewed by Dawne Irving-Bell



Reviewed by Catherine Mavriplis



Reviewed by Kate White



Reviewed by Brooke Midkiff

Film Review – Black Panther
Reviewed by Carol Azungi Dralega

Last but not least, we would like to thank all our reviewers who have reviewed articles in 2018 – your contribution is highly appreciated and has helped to keep the journal at the forefront of our unique interdisciplinary community, offering a platform for both experienced and emerging gender and STEM scholars across the world. A full list of reviewers is available on the journal website.

Clem Herman, on behalf of the editorial executive: Helen Donelan, Holly Hedgeland, Barbara Hodgson, Carol Morris, Victoria Pearson, Gunjan Sondhi