Editorial

Working in education is often seen as a good option for women, flexible working hours and long school holidays being two of the benefits of working in the sector. However, as many scholars have shown, in fact the working culture and norms of academic work are often steeped in tradition and resistant to change, meaning that progression to permanent contracts and senior posts are more difficult for women. Two of our papers in this issue explore the experiences of STEM academic women from different perspectives. Julie Kmec's paper offers an interesting insight into the subjective experience of women working in STEM academia in her paper *Why Academic STEM Mothers Feel They Have to Work Harder than Others on the Job*. The onset of motherhood just at the time when (in the US context at least) job security is most precarious, means that STEM mothers feel they have to work harder than their male colleagues and other colleagues both male and female in non-STEM departments. Yet we must be careful of assuming that STEM academia is so very different from other subject areas. In the UK for example, following a pilot at the University of Reading, the Athena SWAN Awards which have so far been available only to STEM departments, will from next year be extended to other disciplines. As Professor Averil MacDonald notes: "*Many non-STEM areas are actually worse for losing women further up the career ladder than STEM areas. It is assumed that because huge numbers of women apply to non-STEM degrees that more women have the top jobs, but this is false in many cases*" (MacDonald 2013). Similarly we must be aware that for STEM professional women in industry, employment conditions are often much more precarious than in academia.

An examination of the use of parental leave policies in another US university by Corey Schimpf and colleagues, *STEM Faculty and Parental Leave: Understanding an Institution's Policy within a National Policy Context through Structuration Theory* highlights how it is not simply a question of having the right policies in place, but a concerted effort is required to change institutional culture and to create long term sustainability and equality.

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The paper demonstrates how the policies in one institution interact with policies from other organisations, professional bodies and national policies, which may be either congruent and supportive or incongruent and undermining. The implications of this should be explored in other non-academic workplaces. It is a reminder that as an international community we need to continue to collaborate on finding ways to create sustainable careers for women and men in STEM that can be combined with caring roles. In order to do so we need to critically examine initiatives, policies and interventions to understand how to achieve change effectively and this journal provides an important place for such explorations.

The two other papers in this issue examine the experience of engineering education from the student perspective, and in two different national contexts – Sweden and Japan. In her paper *Initiation into engineering: Stability and change in gender orders,* Gunilla Carstensen examines the initiation of students into an engineering programme, a period of two weeks she describes as the 'reception', during which norms and expectations of the engineering student culture are established through the use of visual and dramatic performances by senior students. Using the analytical framework of doing and undoing gender, Carstensen shows how this reception simultaneously reproduces gender stereotypes even as it tries to undermine and challenge the prevailing gender order by including measures to protect women from sexual harassment on campus.

Once through recruitment and initiation into being an engineering student, retention or persistence of women students becomes of increasing importance. Masako Hosaka's study of final year Japanese women engineering students *"I wouldn't ask professors questions!" Women Engineering Students' Learning Experiences in Japan* illustrates how cultural context can shape gender interactions between students and their lecturers and teachers, which may affect retention and progression into engineering careers. Teachers and lecturers are seen as important sources of support yet, as the paper's title suggests, Japanese women students are intimidated by male academic staff and embarrassed at approaching professors who they perceived to be too busy to offer support. Thus the lack of confidence women experience is exacerbated by their reluctance to seek help.

Book Reviews:

Marie Lathers' review of Carol Colatrella's *Toys and Tools in Pink*, begins by posing the question of why girls are less likely to choose scientific or technical careers in the first place. The review gives us a taste of Colatrella's wide ranging analysis of stereotypical cultural narratives that are perpetuated by film, books and television and the almost ubiquitous marketing of pink toys aimed at girls (and presumably their compliant parents). This is not the first study of this kind, but as Lathers observes "*While other scholars have done the same for different groups of texts, Colatrella's unique interventions are her comparative abilities and her up-to-the-minute analyses*"
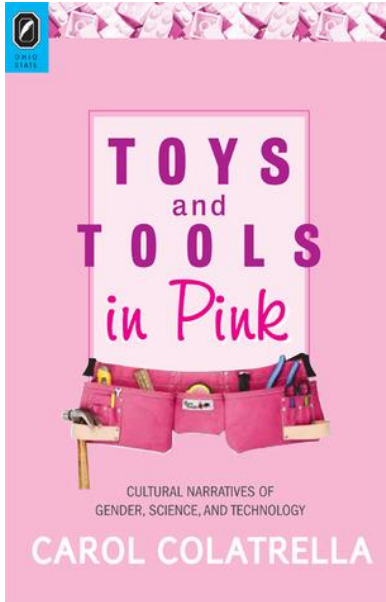
Women's work in the digital economy is one of several interesting themes in Michael Hughes entertaining review of *Digital Labor: The Internet as Playground and Factory* edited by Trebor Scholz. The fact that women comprise 77% of all unpaid internships is perhaps not surprising, and they face increased job insecurity in the digital industries. It is a timely reminder for scholars and practitioners in the gender and STEM community that we should be looking not only at traditional STEM professions but pay equal attention to women's work in the new digital economy and emerging jobs, as well as to the production of technologies by poor women globally.

Clem Herman, on behalf of the editorial executive: Helen Donelan, Barbara Hodgson, Gill Kirkup, Elizabeth Whitelegg

REFERENCES

MacDonald (2013) – quoted in University of Reading Staff Portal [accessed 02 August 2013] http://www.reading.ac.uk/internal/staffportal/news/articles/spsn-453004.aspx