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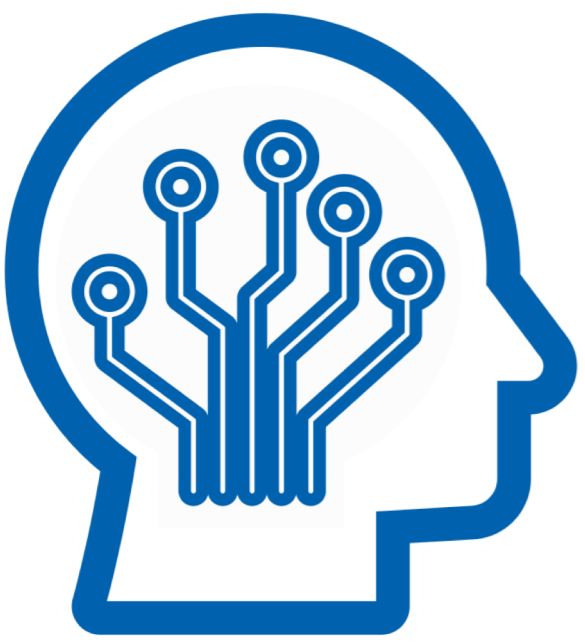
Embedding Equality, Diversity and Inclusion in the Computer Science Curriculum

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MOTIVATION

Higher education institutions must undertake accreditation processes for Professional, Statutory and Regulatory Bodies (PSRBs) to endorse courses that meet agreed professional standards.

Our relevant PSRB is the Engineering Council (which sits as a regulatory body above the organisations conducting accreditations). It defines requirements for accreditation, including promotion of equality, diversity, and inclusion.

Engaging in our most recent curriculum review exercise has given us the chance to reflect on:

a) an **increased awareness of the need to embed EDI** into the professional development of computing graduates;

b) the **success of local initiatives to promote EDI** in the working environment of our faculty and wider institution, which needs to cascade into our teaching.

LOCAL INITIATIVES

These successful initiatives are evidence of our drive for EDI and are exemplary for other HEIs [3]:

- **WiSET+**
  Formed in 2013 for women in science, engineering and technology, it broadened its remit in 2018 for university-wide inclusivity. It organises an annual guest lecture and awards for contributions in EDI [4], and offers informal mentoring through its networks.

- **The Campbell group**
  Since 2019, it is a forum for women in our school at all seniority levels and job families, attending informal meetings and some special sessions with distinguished speakers [5].

- **IDAHOBIT day**
  The International Day Against Homophobia, Biphobia and Transphobia is celebrated on campus since 2018. It promotes inclusivity and diversity in our school, with many volunteers serving on stands offering themed gifts and opportunities to chat.

ACCREDITATION OF PROGRAMMES

The growing awareness of the need to embed EDI in computing degrees is reflected in the requirements from professional bodies for re-accreditation, particularly those mandated by the Engineering Council in the 4th edition of the Accreditation of Higher Education Programmes **(AHEP 4):**

"Departments delivering accredited degrees are expected to promote equality, diversity and inclusion in line with applicable national regulatory frameworks, [...] as well as embedding inclusive design within the curriculum where relevant" [1].

This is critical, as the current gender imbalance across the sector (both in academia and industry) gives rise to a low sense of belonging, more acutely felt by intersectional students [2].

DISCUSSION

Our long-standing local initiatives contribute to a **positive sense of belonging** amongst our staff, evidence of our commitment to EDI. Still, this commitment had been **yet to be embedded in our computing curriculum**.

The main driver to do so now has come from our accreditors, as evidenced in the discussions part of our most recent curriculum review. **EDI completes the professional development of our graduates, and therefore it is of paramount importance.**

We argue that, with these drivers, **we can build on the success of our initiatives to translate them for the classroom**, being mindful that we also need to go beyond promoting gender diversity. "This will involve consideration of applicable health and safety, diversity, inclusion, cultural, societal and environmental matters, codes of practice and industry standards." [1]

[1] Engineering Council. 2020. The Accreditation of Higher Education Programmes (AHEP). https://www.engc.org.uk/publications/

[2] Catherine Mooney and Brett A. Becker. 2020. Sense of Belonging: The Intersectionality of Self-Identified Minority Status and Gender in Undergraduate Computer Science Students. In *United Kingdom & Ireland Computing Education Research Conference*. (Glasgow, UK) (UKICER '20). pp.24–30. https://doi.org/10.1145/3416465.3416476

[3] BCS The Chartered Institute for IT. 2023. Practice Highlights. https://www.bcs.org/deliver-and-teach-qualifications/academic- accreditation/practice-highlights/

[4] University of Southampton WiSET+. Women in Science Engineering Technology and Humanities. https://www.wiset.soton.ac.uk

[5] The Campbell Group – Women Staff in ECS. https://www.ecs.soton.ac.uk/node/9891