CPHC EDI Workshop

Prof. Becky Strachan, Northumbria University
rebecca.strachan@northumbria.ac.uk

Prof. Atif Waraich, Liverpool John Moores University
A.I.Waraich@ljmu.ac.uk
Becky

• Professor of Digital Technology and Education, Northumbria University
• Experience as National Panel Member: Athena Swan, Race Equality Charter
• Faculty lead for EDI, Deputy Chair University Athena Swan
• Faculty Lead for NUSTEM – STEM Outreach and Widening Participation
• IEEE Women in Engineering UKI committee member, lead for school outreach
• Research on equality, diversity and inclusion particularly digital literacy and STEM for hard to reach communities
Atif

• Professor of Computing and Director of the School of Computer Science and Mathematics, Liverpool John Moores University

• EDI Champion for Faculty of Engineering and Technology, Vice Chair LJMU Race Equality Charter Submission, Co-Chair Ethnically Diverse Staff Network (LJMU)

• **Bridging the Gap Project** LJMU [co-investigator]
  • Attainment Gap Project
  • Considered impact of assessment approach as well as lived experience of students
  • Student mentoring; determining lived experience from a student perspective
    • Many factors can affect performance and continuation
Objectives

1. To provide an overview of the Equality, Diversity and Inclusivity (EDI) issues that may affect Computer Science as a discipline in the UK
2. To identify the key issues for us as leaders in CS
3. To identify and share good practice
4. To help to determine the role that CPHC can take in leading on promoting EDI across the discipline
5. To provide some advice on leadership for inclusivity
EHRC – Protected Characteristics

- Age
- Disability
- Gender reassignment
- Marriage and civil partnership
- Pregnancy and maternity
- Race
- Religion or belief
- Sex
- Sexual orientation
EDI Among Computing Students – UK HE

By Gender:
For academic year 2021/2022, there were 37,305 (23%) female students compared to 126,465 (77%) male students with 300 (0.2%) identifying as other*.

By Domicile (2021/2022): 107,400 (UK), 8,060 (EU), 48,795 (non-EU)

By Ethnicity for UK Domiciled (2021/2022, also note much lower numbers collected):

<table>
<thead>
<tr>
<th>Subject</th>
<th>White</th>
<th>Black</th>
<th>Asian</th>
<th>Mixed</th>
<th>Other</th>
<th>Not Known</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computing</td>
<td>17,570 (62%)</td>
<td>1,980 (7%)</td>
<td>4,465 (16%)</td>
<td>1,150 (4%)</td>
<td>570 (2%)</td>
<td>2,370 (8%)</td>
<td>28,225</td>
</tr>
</tbody>
</table>

UK Population: 2021 Census date shows 82% people are white, 18% belong to black, Asian, mixed or other ethnic group

*www.hesa.ac.uk
Staff

<table>
<thead>
<tr>
<th>University</th>
<th>Aberystwyth</th>
<th>St Andrews</th>
<th>Kings College</th>
<th>Cambridge</th>
<th>Southampton</th>
<th>Oxford</th>
<th>Liverpool</th>
<th>Sussex</th>
</tr>
</thead>
<tbody>
<tr>
<td>%Female Staff</td>
<td>33%</td>
<td>33%</td>
<td>31-33%</td>
<td>19%</td>
<td>9%</td>
<td>10%</td>
<td>10%</td>
<td>11%</td>
</tr>
</tbody>
</table>

Sources: CodinGame, CrowdStrike (2021)

Case Study of Good Practice: Technological University Dublin

In 2019, 36% of academic staff were female, 50% of academic leadership following their seven year SUCCESS programme, based on four elements:
Source, Career, Environment and Success

Across the world
[Source: U-Multirank, 900 institutions across 80 countries]
Introduction: ‘BME’ Awarding Gap

• **What is the Awarding Gap?**
  • This refers to the significant disparity in degree class gained by BAME students compared to their white peers (Surridge, 2008; Singh, 2011; NUS, 2019). While the phenomena is well documented, there is limited understanding of why ‘BAME’ students do not perform to their full potential.

• **Academic performance** is strongly tied to feelings of belonging and fitting-in, previous research highlights distinct differences between minority ethnic groups in relation to factors that affect their engagement and attainment (Connor et al., 2004; Dhanda, 2010).

• **Peer support** upon social integration (Kauser et al., 2021) and peer mentoring have been shown to improve the success, retention, educational experiences of students in HE (Terrion and Leonard, 2007).

• We launched the **Bridge the Gap Mentoring Programme at LJMU in January 2022**.

What the LJMU project set out to investigate

• Established that there is an **attainment gap** in performance for some groups of minority students at LJMU (across programmes)
  • We wanted to understand better the issues that affect our students
• Often **we don’t know why** students have dropped out or underperformed
• Some **key issues** we set out to address:
  • What are the expectations of our students on entry?
  • Why do some of our students drop out?
    • What factors impact on their performance?
  • What impact does the culture/environment of the university have?
  • Why do some students not access support services?
  • What is the lived experience of students from minorities at LJMU?
Mentoring reflection analysis

Overview

The programme focussed on understanding the ‘lived’ student experience at university, including what challenges they face in their day-to-day studies (progression) and how the curriculum, university environment and teaching and assessment approaches at LJMU affected their performance. Mentors offered guidance and support to mentees, and gathered anonymised data about mentees experiences, successes and challenges.

Mentee Experiences

• **Personal challenges**: Isolation, home sickness, language barrier
• **Academic challenges**: Practical course content, interpreting assessment brief
• **Relatedness**: Lack of diverse and relatable staff lead to students to believe they will not be heard and understood. Internal and external micro aggression.
• **Access to resources**: Working part time and financial struggle, Students benefited from mentorship scheme.
Decolonising the Curriculum (DTC)

• Project led at LJMU by Dr. Nicola Koyoma
• University wide:
  • Champions identified for all Schools in all Faculties
  • Associate Deans ‘Diversity and Inclusivity’ appointed for each Faculty
• Has led to change to the Programme Review process: DTC is now considered formally at these events
  • Programme teams need to demonstrate how they are addressing it
  • Guidance is provided by the Teaching and Learning Academy at LJMU
Attainment Gap: Computer Science

• Previous work on Computer Science courses and retention:
  • CPHC Retention report 2015
  • Neil Gordon’s report from 2016
    • Attainment and Retention (Advance HE)
Workshop

1. **What are the current EDI priorities for us as Computer Science heads/leaders?**
   - *Athena Swan Charter, Race Equality Charter, Attainment, Continuation (OfS B3)*

2. **What good practice can we share in addressing EDI issues for CS from our institutions?**

3. **How can CPHC help to support EDI initiatives?**

PADLET LINK: https://padlet.com/rstrachan/cphc-edi-workshop-n5nqkzepc7r5xpk7
Padlet QR Code
Inclusive Leadership

Six Signature Traits

Cognizance
Because bias is a leader's Achilles' heel

Curiosity
Because different ideas and experiences enable growth

Cultural Intelligence
Because not everyone sees the world through the same cultural frame

Courage
Because talking about imperfections involves personal risk-taking

Commitment
Because staying the course is hard

Collaboration
Because a diverse-thinking team is greater than the sum of its parts
Reading

• **Issues in retention and attainment in Computer Science (Advance HE)** [https://www.advance-he.ac.uk/knowledge-hub/issues-retention-and-attainment-computer-science](https://www.advance-he.ac.uk/knowledge-hub/issues-retention-and-attainment-computer-science)

• **CPHC Report, Alexandros Chrysikos, Computer Science: Student Engagement and Retention.** [https://cphcuk.files.wordpress.com/2013/11/cphc_engagementandretentionreportaugust20151.pdf](https://cphcuk.files.wordpress.com/2013/11/cphc_engagementandretentionreportaugust20151.pdf)


• **Reciprocal Mentoring LJMU** [https://www.ljmu.ac.uk/microsites/blacklivesmatter/reciprocal-and-reverse-mentoring](https://www.ljmu.ac.uk/microsites/blacklivesmatter/reciprocal-and-reverse-mentoring)

• **Race and Higher Education Reading List LJMU** [https://www.ljmu.ac.uk/microsites/blacklivesmatter/resources/race-in-he](https://www.ljmu.ac.uk/microsites/blacklivesmatter/resources/race-in-he)


References


