School of Engineering and Materials Science

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'Making Diversity Count': Empowering students through inclusive STEM curricula

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BACKGROUND AND MOTIVATION

This project aims to highlight individuals, both past and present, whose significant contributions to the field have often been overlooked due to systemic and historical prejudices, discrimination, and oppression. Our ongoing mission is to present a more inclusive and representative view of the field's diversity to the broader community.

By amplifying the visibility of underrepresented groups, we aspire to foster a stronger sense of belonging among students who may feel disconnected from the traditional narratives that overlook the invaluable efforts of many individuals who have shaped the foundation for progress in this domain. This approach not only challenges the historical exclusion of non-Western contributions, but also fosters

RESULTS

Following the ongoing implementation of the newly revamped resources, student feedback, particularly from women, suggests that representation needs to be covered as an element of the STEM curriculum. In addition to this, the feedback highlighted the importance of using current and politically correct terminology in accordance with the constantly evolving social climate.

55% of the respondents felt as if these resources made them want to learn more about the work of marginalised individuals and their contributions to STEM

Survey Results (113 Respondents)

inclusivity, allowing students from all backgrounds to see themselves represented in the discipline.

- Diverse role models in STEM are essential.
- They broaden perspectives, challenge stereotypes, and foster ambition.
- When students see successful professionals from various backgrounds, they feel empowered, creating a stronger sense of belonging and confidence.
- This representation enriches the field, introducing new perspectives and innovative approaches to problemsolving, ultimately cultivating a more inclusive and forwardthinking generation of STEM professionals

INITIAL WORK

To tackle this issue, the work of marginalised groups needed to be incorporated in the curriculum. This started with an initial booklet comprising of 88 biographies of STEM individuals from under-represented backgrounds, both historical and present, who have made significant contributions to their respective fields.

The booklet is categorised by demographic groups for individuals across the different areas of mathematics for ease of use for teaching staff to find biographies relevant to their

Did these resources make you want to learn more about 'diverse' individuals in STEM?

Strongly Disagree Disagree Neutral Agree Strongly Agree



FUTURE WORK

Having recently carried out student focus groups in collaboration

content.

IMPROVEMENTS

After piloting this resource across 2 undergraduate applied mathematics modules, featuring 700 students, feedback indicated a strong need for this type of resource within STEM education with the stories of individuals strongly resonating with students. However, this also called for massive improvement in the type of resources being put forward, leading to the creation of newly revamped multimedia-friendly materials.

Scan for QMUL EDI page showing some of our current resources

with the Open University, our next steps are to analyse the data collected and uncover the impact of moving towards a 'decolonised' STEM curriculum for students.



"By showcasing the achievements of individuals from underrepresented backgrounds students can be inspired from all walks of life to do the same" – Student

