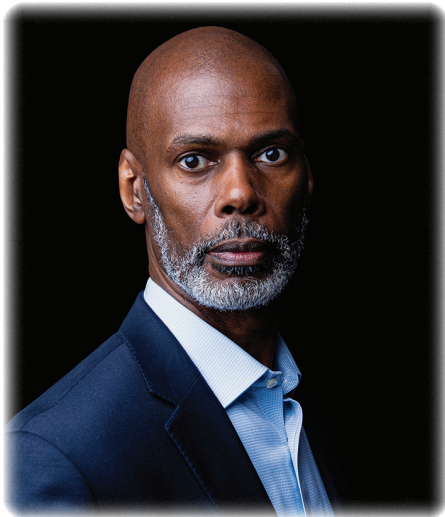


On the Relationship Between the IMA and EDI

On 1 January 2024, I assumed the role of the IMA's EDI Champion in becoming the new Chair of the EDI Committee. At the November 2023 Council meeting, it was agreed that the EDI group would become a committee and this was, in no small part, due to the efforts of Rosalind Azouzi and Snezana Lawrence FIMA.

Photographer: Mr Josimar Senior



Howard Haughton – the IMA's new EDI Champion

EDI within the IMA

Terms such as DEI and EDI have been commonly used for several years but what does it mean? The terms DEI and EDI have traditionally meant Diversity, Equality and Inclusion/Inclusivity and Equality, Diversity and Inclusion respectively.¹ However, there is an increasing awareness that not only is there a lack of equality in educational attainment, but inequities persist in the hiring and progression rates of individuals with diverse protected characteristics.² In recognition of these inequities, the IMA has decided to adopt an equity rather than an equalities perspective of EDI. In this respect, the IMA has committed to:

Develop our EDI strategy to create an inclusive culture within the IMA and across the mathematics and its applications community.

The IMA's EDI strategic intent is reflected in the following key activities (see ima.org.uk/23316/ima-strategy-2023-2028):

- Develop and regularly review the IMA's EDI strategy to create an equitable, diverse and inclusive culture within the IMA and across the communities we represent. This fosters greater engagement and participation, creating an environment where all can thrive and fulfil their potential in mathematical science endeavours.
- Introduce a risk-based approach to the management of EDI-related risks to support the embedding of EDI into all of the IMA's activities and processes and inform decision-making.
- Ensure our people, processes, systems and activities are inclusive and transparent.
- Measure and monitor our progress against external benchmarks.
- Provide EDI training and tools to support inclusivity, particularly for those involved in decision-making and assessments.

Vision as EDI Champion

My vision as EDI Champion is to support the organisation to embed EDI into its operational decision-making processes to enhance the creativity and innovativeness of service offerings to our varied stakeholders. Manifestation of this vision includes, but is not limited to, increased diversity of speakers at IMA conferences and events, greater diversity of membership and engagement with marginalised communities coupled with improved means of aiding career pathways for such groups.

Whilst the IMA continues to chart its EDI journey, my desire is that it benefits from and shares its knowledge with other learned societies and specialist organisations. We are stronger as a collective than the sum of our parts. Practically this is likely to take the form of joint events at which EDI will be a key focus.

Importance of EDI in mathematics

The application of mathematical sciences is an important contributor to the UK economy. A report by Deloitte (see tinyurl.com/UKRI-Deloitte2012) assessed that mathematical science research contributed gross value-added of £208 billion per annum, with around 2.8 million people employed in the field in 2010. Given the proliferation in the use of artificial intelligence and machine learning (AI/ML), and the growing professionalism of data science as witnessed by the IMA's participation in the Alliance for Data Science Professionals certifications (alliancefordatascience-professionals.com), those figures are very likely to have increased. However, with the advancements of AI/ML and the corresponding opportunities, we cannot be complacent that such technologies will not exacerbate existing inequalities.

By addressing the issues highlighted earlier concerning the inequitable participation in the mathematical sciences, and STEM more generally, the UK economy can benefit from increased productivity, creativity and innovation (see tinyurl.com/Diversity-wins-2020). This is fed by and feeds into a workforce that feels more psychologically and, most likely, physically safe (see tinyurl.com/CIPD-Equality). This is likely to benefit research and applied initiatives utilising AI/ML (that are highly susceptible to incorporating societal biases in data, algorithms and use).

Since these technologies make heavy use of mathematical concepts, EDI has a role in shaping the type of maths that can be used to minimise the harm to those individuals affected by AI/ML decisions. EDI also has a role in providing balance in perspective and the characteristics of those involved in the AI/ML model pipeline, which should help to reduce a variety of biases.

As a final point, mathematics has an important role in shaping EDI policy. The IMA (through new special interest groups) will undertake mathematical research applied to modelling EDI-related issues with a view to identifying quantitative methods that can be used to support qualitative measures for managing the risks of poor – and upside of good – EDI practices.

Howard Haughton CMath FIMA
IMA EDI Champion

Notes

- 1 The use of the term equality in these definitions was likely influenced by the UK 2010 Equality Act where the emphasis is on equality.
- 2 See House of Commons Science and Technology Committee *Diversity and inclusion in STEM* report (tinyurl.com/DIinSTEM).