SCBE EDI Newsletter: Equality

August 2022
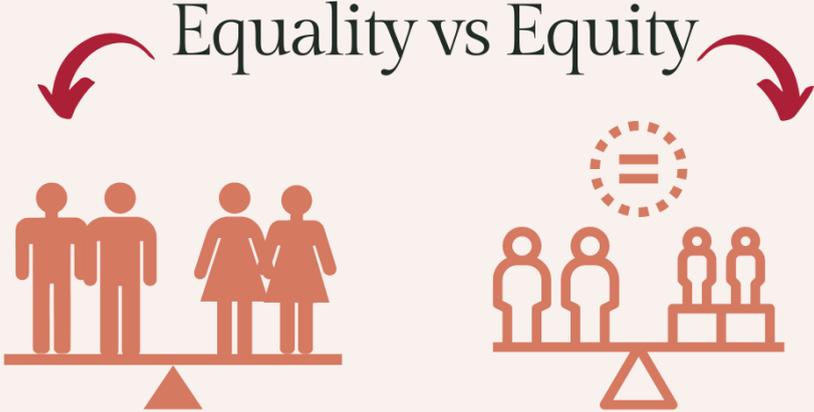
EDI Theme Focus: Equality

Before the rules for scientific research were so clearly laid out, history witnessed the era of pseudoscience. Previously, leading pseudoscientific theories on the biological differences between the sexes, the races and neurodivergent people had ruined the lives of many, and wiped out the scientific contribution of more. The list of criteria for what constituted 'scientific experimentation' probably had fewer characters than today's Tweets, and unfortunately, humanity is still trying to mend the harm caused. One way of mitigating centuries of damage is through actively advocating for equality in all spheres of life.

What is equality and why is it important?

Equality (not to be confused with equity) deals with ensuring that individuals are not discriminated against based on their age, gender, race, abilities, marital status, religion, sexual orientation, health or socioeconomic backgrounds. It promotes both equality of treatment as well as equality of opportunity.

Promoting equality on all fronts gives people a choice on how their life must move forward–this creation of independence amongst people from diverse backgrounds has been proven to boost the economy. Moreover, advocating for equality ripples out into scientific research as studies have shown that the quality of data collected for sociological studies and policy framing can be severely affected by biases created by inequality.

But as scientists and engineers, if our common goal is to advance scientific progress, do we focus on equality or equity?

## What is the difference between equality and equity?

While both terms sound quite similar, the subtle difference lies in where uniformity is applied. Equality stresses on uniformity of opportunity and treatment. By focusing on equality, we ensure that people from all backgrounds have equal probability in accessing the resources required for their success. For example, to have two people eligible for the same job, equality believes that they must be treated indifferently and provided with the same opportunities to prevent discrimination.

On the other hand, equity focuses on achieving uniformity of outcome. This would mean that disadvantaged groups would gain access to more/vital resources in the early stages to ensure that they are able to ultimately achieve equality. For example, equity of treatment and opportunities would favour one individual over the other in the hopes that the near future uplifts the community to the point where equality can be achieved. Hence, equity is a necessary step towards equality, and one of the key methods in accelerating scientific and cultural progress.

What small step can we take to promote equality in our own community?

While keeping up with UCD's EDI news is one way to support various university-wide initiatives in progressing EDI outreach, actively engaging with the people around us helps too. Some people can easily feel "cheated by the system" when equity programs benefit their peers over themselves. Taking the time to talk through their feelings while opening up their minds to the reality of the situation is one way to help slowly drive change.

Second, the importance of exposing people to an expansive set of role models is a method that is cost-effective and has [psychologically proven](#) to improve gender and race equality in STEM students. As staff members in education, continually emphasising on advanced research work done by people from diverse backgrounds may boost outcomes for gender and racial equality in our own school. Similarly, as undergraduate and graduate students in engineering, engaging with activities such as [SoapBox Science](#) can help spark much needed interests in young students and inspire them to pursue science and engineering.
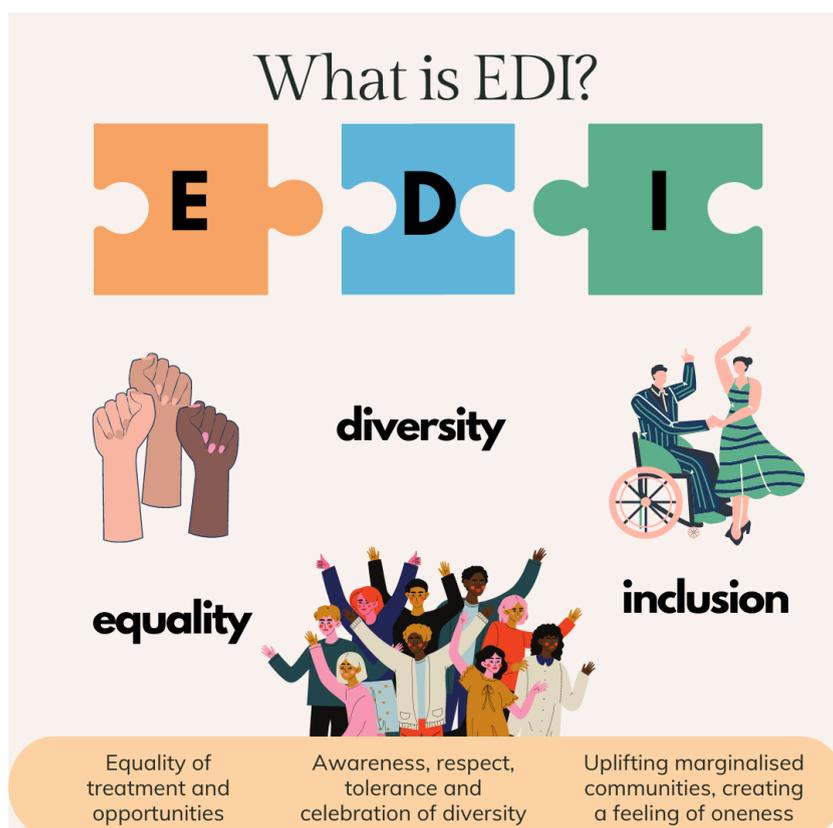
What is the SCBE EDI Committee?

The Equality, Diversity and Inclusion Committee for the School of Chemical and Bioprocess Engineering (SCBE) consists of a mix of undergraduate and graduate students, postdoctoral researchers, academic, and administrative staff. The committee strives towards promoting EDI across all levels by continuously engaging with students and staff on these topics. We seek to promote social interactions and create an environment that bolsters confidence in all to discuss personal and professional issues related to EDI.

Undergraduate Representative: Ms. Adesola Ojomo-Amaka and Ms. Eva Wall.

Graduate Representatives: Ms. Nethraa Kannan, Mr. Apostolos Tsopanoglou, Ms. Cristina Abascaul-Ruiz and Ms. Aswathy Balakrishnan.

Postdoctoral Representatives: Dr. Sorcha Daly and Dr. Jhimli Paul Guin.

Staff Representatives: Dr. Veronica Sofianos (Chair), Dr. Ioscani Jimenez del Val, Dr. Niall

English and Ms Henna Kinsella.