



University of
Nottingham
UK | CHINA | MALAYSIA

COMP 3056 Professional Ethics in Computing

Week 5 Equity-Diversity-Inclusion (EDI) in
Science and Engineering

Anthony Bellotti



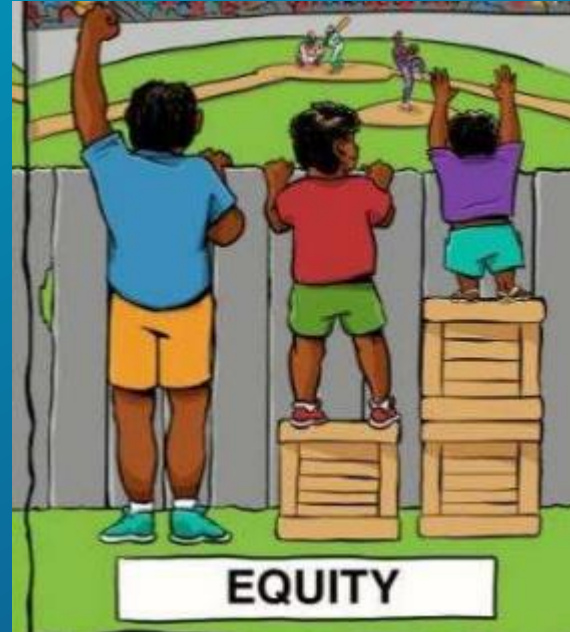
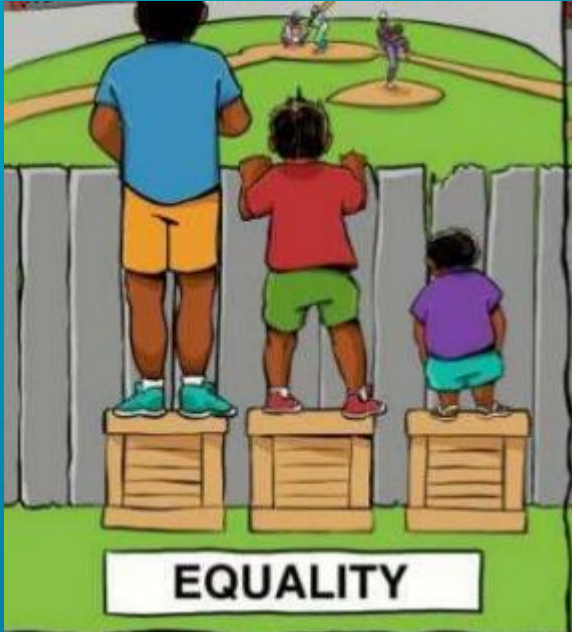
Equity – Diversity - Inclusion

What does Equity – Diversity – Inclusion (EDI) mean?

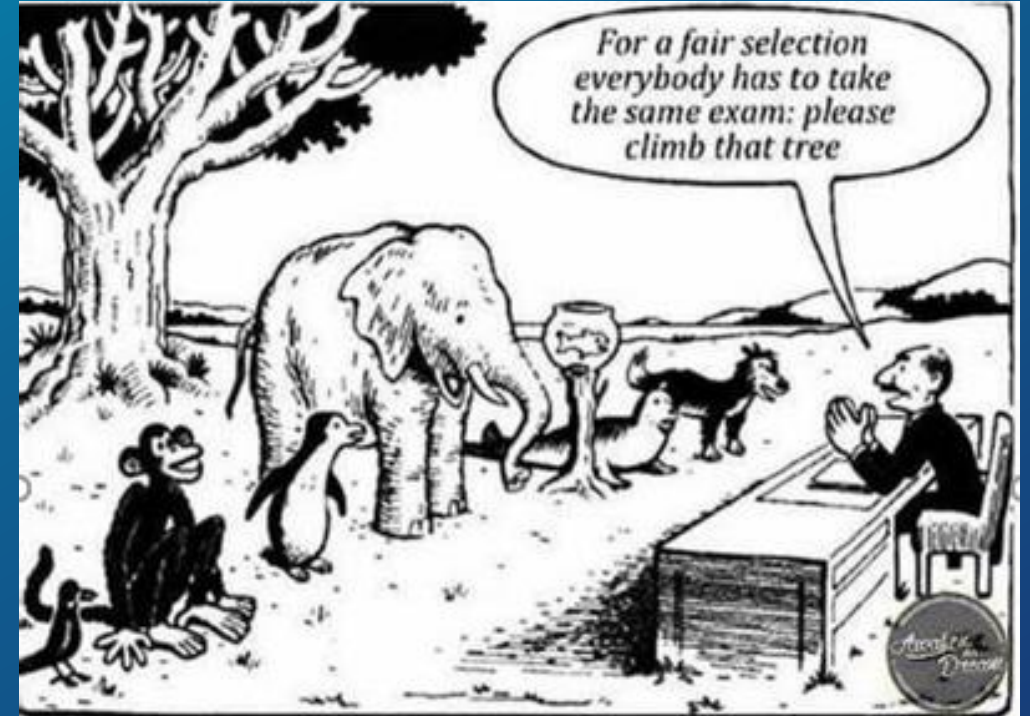
- **Equity**: Give everyone an even opportunity to participate and achieve.
- **Diversity**: Encourage and celebrate differences between people.
- **Inclusion**: Everyone is included and belongs.



Equity



The difference between Equality and Equity.



Is this a fair assessment?
Core competence.



University of
Nottingham

UK | CHINA | MALAYSIA

Diversity



- Encouraging and celebrating participation by people from wide range of backgrounds and with great range of life experiences.
- This opens doors and insights for everyone!



University of
Nottingham

UK | CHINA | MALAYSIA

Inclusion



What does this photo
show?

What does it indicate?

- Inclusion means that everyone is made welcome and feel they belong and can participate.
- Everyone is treated fairly and with respect, regardless of their differences.



Protected Groups

There are some groups that require special consideration for EDI and may experience discrimination and hence require protection; e.g.:-

- Age
 - Disability (including physical, mental health, autism...)
 - Sex: Male / Female
 - Race
 - Religion and belief
 - Sexual orientation
- (this list is not exhaustive)



Intersectionality

- It is important to consider protected groups;
- But sometimes discrimination happens at the *intersection* between groups.
- For example, black women in engineering.
See the movie →





- Awareness / vigilance
- Remedial action (e.g. improving conditions for disabled)
- Positive action (e.g. encouraging diversity)
- Self-reflection on unconscious bias
- UNNC strategy and policy on EDI



Student Discussion

- Can you think of examples of EDI?
- How about from your own experience?
- Or people you know?



EDI and Engineering

- Equity, Diversity and Inclusion are becoming increasingly important in Engineering.
- EDI in the workplace.
- EDI in engineering, design and innovation.



[swe.org](https://www.swe.org)



University of
Nottingham

UK | CHINA | MALAYSIA

IEEE President



Ray Liu, IEEE President

“What I have treasured most is having the opportunity to befriend colleagues from around the world, from different cultures, with different beliefs, ways of life, and languages.”

“IEEE continues its efforts to strengthen diversity and inclusivity across the organization and in the broader technological community.”

“I made a promise to every member from all of our diverse groups and regions, especially women and others from underrepresented communities, that they will have a fair opportunity for participation and leadership.”

www.ieee.org/about/diversity-index.html

IEEE Spectrum, September 2022



EDI in the workplace

- Diverse workplaces increase the skill set of the team.
- “The most diverse companies are now more likely than ever to outperform less diverse peers on profitability.”
McKinsey & Co. Report, Diversity wins: How inclusion matters, 2020
- Clear and fair treatment of all employees makes the workplace a more attractive and positive place to work.
- Diversity of employees leads to better decisions.



EDI in Design and Development

- Embracing EDI into our engineering solutions, so that everyone can enjoy and participate in our products and technologies.
- When designing, think about groups who may have difficulty using it. ... *Awareness*
- Create focus groups and *talk* with people who may need special arrangements to use your product or design.



Some examples



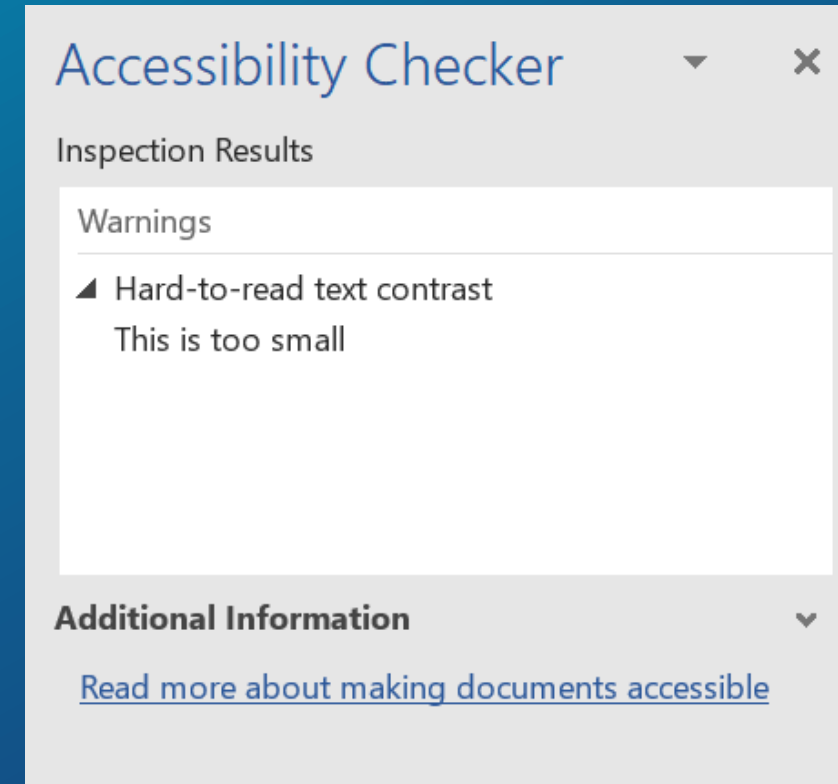
Design to enable
wheelchair users on to a
bus.





Accessibility in Software

- Provide options for colours, font, font size.
- Narration tools.
- Magnifier.
- Subtitles.



Accessibility checker in MS Word.



University of
Nottingham

UK | CHINA | MALAYSIA

UNUK EDI



Equality Diversity and Inclusion

Why does EDI matter?

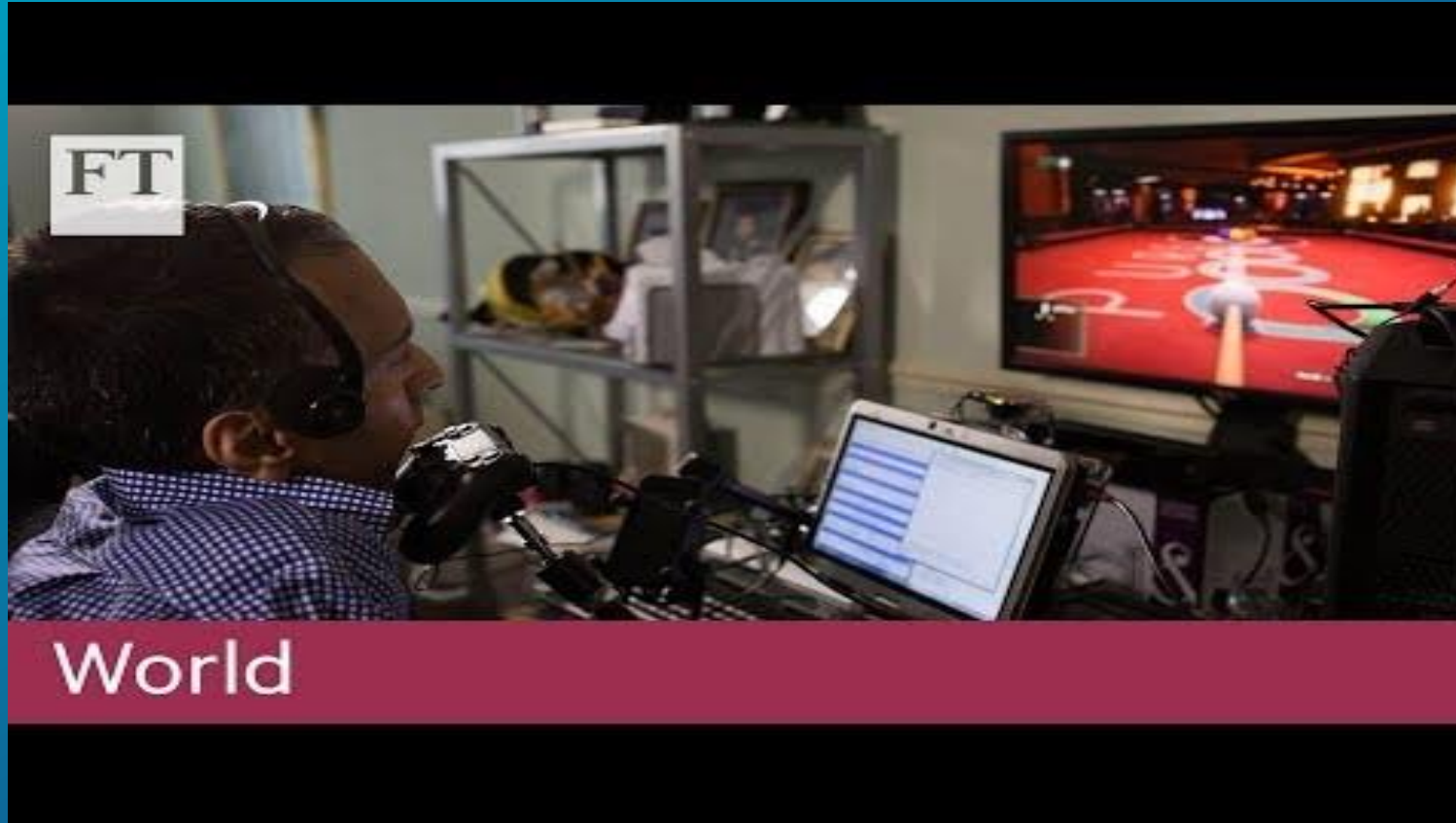
<https://youtu.be/KV47jUFWlww>

The UNUK Faculty of Engineering's EDI team



University of
Nottingham
UK | CHINA | MALAYSIA

Gaming with Disabilities



<https://youtu.be/bFTVTyBJZZU>

Financial Times report on Disability in Gaming



University of
Nottingham

UK | CHINA | MALAYSIA

Workshop w/c 4th November

- Coursework 2.
- Design solution for disabled computer users.
- Work in your teams.

