# Lecture 8 – LGBTQ+ in Engineering – Notes

## Mark McBride-Wright, EqualEngineers

## Intro:

Learning outcomes:

* Understanding progress on LGBTQIA+ in Engineering
* Understand notion of Allyship and how it relates to your own identity
* Be able to encourage broader community on EDI through psychological and physical safety analogies [Mark’s background is as a safety engineer and has significant experience doing this]

Interaction; What do students want from this session? What do they want to know more about?

* What are companies doing about LGBTQ+ inclusion?
* What is psychological safety?
* Perspectives on the sentiment “Sexuality is nothing to do with the workplace”
* What is different about the engineering industry specifically wrt LGBTQ+
* Personal lived experience

Mark’s Background:

Studied here at Imperial in Chem Eng., did a PhD with Imperial too. Became a safety and risk consultant/safety engineer. Now is a visiting professor at UCL, managing director of Equal Engineers

Mark was “out” throughout university. Got engaged in May 2009. Was about to accept a scholarship in collaboration with Qatar, where being homosexual is illegal, to design and build own lab with £75 million to be spent on the project over 10 years. This was a dilemma. The contract though was with Imperial, where Mark had also done his undergraduate. Due to this, and therefore Mark’s privilege of existing relationships, Mark was able to take the PhD position and benefit from it; he never ended up needing to go to Qatar. This was a moment though where his identify could have impacted on his career and life choices, were their other LGBTQI+ candidates who were put off from applying due to this being done with Qatar?

The point of privilege is not to feel guilty about having it but to think about how you can use it to benefit others. It takes for people to speak up in order to problems to be addressed, but we need to feel psychologically safe enough to do so.

~2013, when Mark became a safety engineer he had more time available and thus began his EDI work. This was when he started working on InterEngineering. Having been at the Pride parade he had noticed there were no engineering organisations.

80% of the engineering demographic is white, male, cisgender, heterosexual, able bodied and neurotypical. It is this group who have to work harder to identify times when they have felt isolated or excluded. An example of this is micro-aggressions.

Micro-aggressions are defined as small acts which may not be malicious but “reinforce your place in the pecking order as not being part of the in-group”. An example given is for a non-native English speaker “oh your English is so good, where did you learn it?”. An analogy is given of mosquito bites; one is tolerable or ignorable, but many can result in an adverse reaction and be very difficult to deal with.

Working as a safety engineer in Chemical Engineering Mark set up a network group for LGBTQ+ in engineering call InterEngineering. The group supported engineers, attended Pride and this lead then to the creation of EqualEngineers. They have mentoring, conferences, careers fairs and advise clients and bodies such as the Royal Academy of Engineering on LGBTQIA+ inclusion.

Progress Flag shown; The original Pride rainbow flag was updated to include stripes representing the black and trans communities. This shows than even inclusion needs to grow, change and develop with increasing understanding. (you may also see it with a yellow & purple circle to represent intersex and asexual people).

Section 28 was brought in in the 1980s in the UK. This was legislation which banned the promotion of homosexuality in schools. So teachers were not allowed to talk about LGBTQ+, or promote non-traditional families as people believed children were being indoctrinated by speaking about this. This was repealed in the early 2000s, so progress about many things (not just LGBTQ+ but also other protected characteristics) changed notably between 2000 and 2010 (when the Equality Act 2010 was brought in). However, people in leadership positions now, are those who were educated prior to this repeal and movement in progress.

## InterEngineering:

Launches 2014, leads a House of Commons report “Engineering Action: Tackling Homophobia”, from this - £11.2bn GDP is potentially lost due to LGBTQI+ people being “in the closet” / not able to be their full productive selves. This is a great economic argument for inclusion!

Sets up regional groups, creates digital resources to help people educate themselves/others and find support/advice. Attends pride parades, creates workshops on measuring diversity. Created digital engineering pride festival. InterEngineering has become an “incubator” for empowering people to create and frame cases to set up employer networks. This has resulted in networks in big employers such as Airbus.

## Equality Pendulum:

Progress leads to a response from the majority. “Too much” progress leads to the brakes coming on and rights being rolled back (e.g. Roe vs Wade being overturned). Progress can therefore be undone. It also shows us how important it is to demonstrate the value in our change.

Engineers are the 2nd most trusted profession. If society trusts us then lets use that when we give our lectures etc., lets bring a bit of ourselves into public engagement to normalise diversity.

Definition provided of “erasive language” – language changes and evolves and what is acceptable changes. Erasive Language is where we “erase” aspects of the community, e.g. the phrase “crawl, walk, run” erases the physically disabled community. An example in engineering would be “master-slave controller” which erases the negative connotations of these terms relative to the history of slavery. We could use “primary-secondary controller” to provide a more neutral approach.

## Workplace Culture Models

When in Rome: “When in Rome, do as the Romans do” – ie behave according to local norms. This is similar to the US Army’s old approach of “don’t ask, don’t tell” as it used to be a fireable offense to be gay in the army (up to ~2001).

Embassy: We cannot change the local environment, but within the walls of our workplace you are supported. E.g. an LGBT engineer in Qatar working for a western organisation. You are safe in your workplace but will still need to “mask” in general public.

Advocacy: Workplaces who campaign for change. This is often more retail/commercial companies rather than businesses. However, in North Carolina IBM and other businesses advocated for changes to laws regarding which toilets trans people had to use. This delayed the legislation being passed. India was planning to recriminalize homosexuality; Airbus worked with their local Indian Pride network to canvas for opinions and based on their local employees perspectives they campaigned against this legislative change with other employers and the legislation was NOT passed. Charities are often the most powerful in this space.

When choosing who you want to work for; think about which of these models your employer is operating under.

## Beyond LGBTQIA+ - EqualEngineers:

EE run Events, Awards, Recruitment, Training & Consultancy. This is not just about LGBTQ+ but also other marginalised groups such as women in engineering, BAME, neurodiversity etc.

EE offer Training: e.g. asking employers/managers, do you feel like you’re walking on egg shells? Many resonate with this. This is because they have no frame of reference, they’re not familiar with the issues being experience. This could be indicative of a “when in Rome” leadership style. Once someone has informed them about an issue many leaders are like the swan; cool and collected on the surface but panicked flapping underneath trying to work out what to do. So if egg shells and swans resonate with you then it’s important to get more experience and understanding of the issue, via TED Talks, reading, etc. not by placing all the burden on the marginalised groups.

Inclusion is more about bringing up topics you might not feel comfortable talking about (gambling, fertility, menopause, depression, etc.) than it is about flying a pride flag. Meeting disclosures with empathy and concern rather than shame and closing things down is important inclusion work.

## Masculinity and Suicide in Engineering

We are familiar with making the workplace physically safer, installing barriers, preventing slips and trips etc. However, you are more likely to die through suicide in engineering & construction than a fall from heights etc. Yet it is the latter engineering companies spend time and money on. Male construction workers 3.7x more likely to take their own life than the national average. It’s therefore important to address these issues.

Mark created the “Masculinity in Engineering Research” project. Of 670 participants, 18% had lost a colleague to suicide and 21% have considered it themselves (and 6% stating “prefer not to say”) with male respondents much more likely to have considered taking their own lives. We need to fundamentally change how we engage with the male majority to enable them to explore their own emotions, identities and differences and allow them to build empathy. Post COVID this has gotten worse. Now 25% have considered taking their own life.

Slide has written findings and recommendations much of which are about workplace culture.

Funding has been obtained to address this and work with men in the nuclear industry, this and the research combined has lead to key recommendations:

* Create parity between psychological and physical safety
* Highlight the “toxic” in toxic masculinity (e.g. men not being able to show emotions in front of each other with the exception of anger)
* Diversity initiatives must focus inclusion

<http://bit.ly/EqEngMasculinityReport2019>

## Iceberg Model:

The iceberg has a waterline of visibility. Some things we can see “above the water”, many things though we cannot, it is “below the water”. If you have an inclusive culture then people are more likely to be open about things which are “below the water line”, this in itself helps lower the water line.

An iceberg can change, can change how it floats. If, when looking at the iceberg model, we can change our “waterline” by changing how the culture enables people to open up when they are ready then we can better support people and improve mental health.

## Allyship:

Allies: There are too many lip service allies, a good ally makes effort to make change. They will support the creation of an inclusive culture. You can do this by speaking to those from other groups and cultures, and learning about their lived experience. There is therefore a continuum of allyship, which is a journey we are all on:

Apathetic -> Aware -> Active -> Advocate

[See slides for full details of the continuum]

As an example, when Mark set up InterEngineering he didn’t know any trans people but has now spent a lot of time talking and working with the trans community so now feels he is able to advocate for them.

## Summary:

* Awareness days/events (e.g. Pride, Black History Month) give a moment to both celebrate and to highlight inequities
* Intersectionality is important
* Get curious about other communities and identities (not just by asking the minoritized individuals)
* Encourage colleague to show their positive intent and ask questions
* Ask your employers and importantly, future employers, what they are doing to create inclusive cultures – do your due diligence before applying & reach out to people through LinkedIn [Slides provide full list of example questions/considerations]

## Clarification of some important terms:

LGBTQI+

Lesbian, Gay, Bisexual, Trans(gender), Queer/Questioning, Intersex, + = all other associated identities

LGB: Sexual orientation

TQI: Gender identity

+: might include things such as asexual (no sexual orientation), gender fluid etc.

Allies; the primary intent being for those who aren’t part of the community to identify that they are supportive of it

Networks; e.g. IQ (Imperial Queers; student network) or i600 (staff network) which can be good ways of meeting other members of the community, for supporting those within the community and for supporting family members of the community. Mark gives the example of a colleague whose son came out and the parent received advice on how to support their LGBTQI+ son. Mark recommends seeking out these networks.

