Humble Practice in Engineering: What does it look like?

Ellen Lynch, Amy McLennan and Jeremy Smith • Australian National University, Canberra

ellen.lynch@anu.edu.au

WHY?

To tackle modern challenges, engineers must be able to work within complex teams, environments and projects. Collaborating across disciplines and sectors requires honing and nurturing specific interpersonal skills and attributes. These include open-mindedness, collaboration communication, emotional intelligence, stakeholder management and empathy. All of these skills and attributes require high self-awareness and other-orientedness. In my research, this is encapsulated by the term “humble practice”.

Unlike concepts such as empathy (Hess, Beever, Strobel, & Brightman, 2017; Strobel, Hess, Pan, & Wachter Morris, 2013), humble practices have not been investigated in engineering, despite these behaviours and actions being reflected in engineering competencies (Engineers Australia, 2012a, 2012b, 2018).

HOW?

This study seeks to understand engineers’ perspectives on *humility* and *humble practice* in Australian workplaces. The definition of humility is constructed from literature as an attitude to our personal and others limitations.

Interviews of 20 engineers in Australia will be used to understand experiences of building relationships in the workplace and how humble practice influences technical outcomes through relationships. To be representational of the profession in Australia, the participants will cover 13 major disciplines and sectors, have 10-20 years’ experience, represent the 15% of females in the profession and 85% of males, and the high proportion of migrant engineers.

The interviews will never explicitly mention the term ‘humility’, instead seeking qualitative experiences of 4-5 key aspects of humility, reflected in a developing model.

WHAT?

Broadly, the requirements of engineers are driven by competency-based accreditation systems such as Engineers Australia (EA) and ABET. These highlight the need for engineers to build ‘happy, healthy and prosperous communities’ (Engineers Australia, 2017) and be socially and environmentally aware, considering global, economic, public health, safety and welfare (ABET, 2019; Birzer & Hamilton, 2019; Engineers Australia, 2012b). This inherently requires awareness that one’s knowledge and perspective are fallible, and respect for knowledge and perspective outside of your own, key aspects of humility.

YOUR INPUT

We invite your contribution and thoughts on this ongoing project.

Click **HERE** to tell me about a time you saw something resembling humble practice in the workplace or in your work, or complete the activity below.

“Personally, I see humility in admitting you don’t know something. When someone seeks clarification on an item, casually admitting that they don’t know what an acronym means, or why a certain material is better than another, that demonstrates humble practice. They are confident in their own knowledge and would like to increase their knowledge and understanding, without ego.”

Curious

Open-minded

Celebrates Others

Accountable

Confident

Admits fault

Other-oriented

Self-critiquing

Reflective

Listener

Respectful

Self-aware

What do humble engineers look like?
[Click HERE to vote and add your feedback](#)

Acknowledgements We would like to acknowledge the guidance and help of Lachlan Blackall and Chris Browne in the development of this project and ideas.

Reference

ABET. (2019). Criteria for Accrediting Engineering Programs, 2018 – 2019. Retrieved December 9, 2019, from <https://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-engineering-programs-2018-2019/#GC3>
Birzer, C. H., & Hamilton, J. (2019). Humanitarian engineering education fieldwork and the risk of doing more harm than good. *Australasian Journal of Engineering Education*, 24(2), 51–60.
Engineers Australia. (2012a). Stage 1 Competency Standard for Professional Engineer Role Description-The Mature, Professional Engineer.
Engineers Australia. (2012b). Australian Engineering Competency Standards Stage 2-Experienced Professional Engineer.
Engineers Australia. (2017b). Our Strategic Direction 2017/18-2019/20. Barton.
Engineers Australia. (2018). Our Code of Ethics. Retrieved from [https://www.engineersaustralia.org.au/sites/default/files/resource-files/2018-10/EA Code of Ethics Final_1.pdf](https://www.engineersaustralia.org.au/sites/default/files/resource-files/2018-10/EA%20Code%20of%20Ethics%20Final_1.pdf)
Hess, J. L., Beever, J., Strobel, J., & Brightman, A. O. (2017). Empathic perspective-taking and ethical decision-making in engineering ethics education. In *Philosophy and engineering* (pp. 163–179). Springer.
Strobel, J., Hess, J., Pan, R., & Wachter Morris, C. A. (2013). Empathy and care within engineering: Qualitative perspectives from engineering faculty and practicing engineers. *Engineering Studies*, 5(2), 137–159.

CEEA Annual Conference 2020
Montréal, Canada