# Identifying The Defining Features and Discourse Around What it Means to be an Engineer.

### Motivation:

1. Diverse and incongruent discourse experienced in defining an engineer in the 21st century – etic and emic roles of researcher in engineering education

## • Locating:

- 1. About Engineers/by Engineers/ Regulatory Bodies
- 2. Engineering Education Accreditation (CEAB)

# Analysis:

CEAB 12 Graduate attributes

KNOWLEDGE BASE FOR ENGINEERING, ETHICS, LIFE LONG LEARNING, DESIGN, <u>PROFESSIONALISM</u>, ECONOMOCS, PROBLEM ANALYSIS, INVESTIGATION, TEAMWORK, TOOLS, <u>SOCIETY</u> AND <u>ENVIRONMENT</u>

- 2. New Graduate Survey
- 3. Interviews with subjects (Dr. C and Dr. K)

CREATIVITY, ENVIRONMENT, HANDS-ON, HUMANITY, SOCIETY, HUMAN CONDITION, PROFESSIONALISM, ATTRIBUTES

## Discursive resources :-

- Self disclosure of personal subjective story
  Supply and demand
- Stereotypes of engineer -- Arguments for distinction from "sciences"

#### Assertions

- a) Discourse describing "engineer" is negotiated by engineers and non-engineers alike, contingent on who is discussing the meaning, and is dynamic in that technology is always advancing.
- b) The discourse is inherently linked to (subjective) professional identity formation which will determine expressed perspective

- 12.C: No, I don't think there is, I don't think in the way that we implement Engineering education is the cause. I think it is the way we engage with the rest of the community and Its not in Engineering. Um, whether its through education, like I think in a good engineering curriculum from first to fourth year, fifth year depending on the program, um the instruction that we have with the community, with industry is critical. with civil engineering its a natural fit, i don't see it much with mechanical and electrical engineering, and I think that, you know, as you go through your education, um, if that connection with community is absent, um, the community doesn't see you, and you don't see them, and get into the workforce, they still don't see you. Um, they just see what you create and don't see the person attached to it, and they only care about it when it fails. so you only become recognized when it fails, and all engineering endeavours fail eventually. and so thats the unfortunate part. so i think its our, um, so maybe the answer to your question, is yes, because that is how we have educated engineers. the education we provide should be something that um, the community is actually inputing into, or in-touch with, infusing something into it.
- I think anyway, or at least they should be aware. there is a lack of awareness ultimately between the student while they are becoming educated, and when they go into the workforce, um by the community in general. the community has no clue what engineering education is about. my colleagues down the hall, in the next faculty, haven't got a clue. Here, scientists in our own faculty don't have a clue.