



# NCSEA

National Council of Structural Engineers Associations

## STRUCTURAL CONNECTION - BOARD THOUGHTS

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### Ethics for the Next Generation of Engineers

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I have given many presentations on a number of different topics, both technical and non-technical, over the course of my 22-plus years as a structural engineer. Last month, I faced my largest audience yet – roughly 750 seniors in the various engineering programs at Texas A&M University. They were taking a mandatory ethics class that included attending the annual Bovay Lecture on Ethics and Engineering, which I had the privilege of delivering at the invitation of the faculty in the School of Engineering and Department of Philosophy. With their indulgence, I took my first-ever “selfie” before beginning my hour-long remarks.

My lecture, entitled “[Virtuous Engineers: Your Practice Is Your Ethics](#),” was largely an elaboration of my Structural Connection piece from June 2016. I emphasized that we should treat ethics as something that is integral to practice, rather than supplementary. In fact, every engineering decision that we make has ethical implications, because the public implicitly relies on us to assess, manage, and communicate the associated risks on their behalf. Known to philosophers for centuries as “virtue ethics,” the specific approach that I advocate focuses on the exercise of context-sensitive judgment developed through experience, rather than merely following rules or procedures.

Based on what I learned from professors and graduate assistants over lunch and dinner, the students probably had greater previous familiarity with a lot of the material than the seasoned practitioners who typically hear me discuss this topic or read my articles about it. I am glad to know that these engineers-to-be are getting a more well-rounded education than I did. Back then, I was narrowly focused on only what I thought would be relevant to what I planned to do for a living; but I now believe strongly that the real hallmark of a university degree in any field should be the cultivation of a love and aptitude for lifelong learning, rather than merely qualifying for a job upon graduation.

The comments and questions after I finished speaking were also encouraging. One student said that my discussion of how emotions, especially empathy, can foster ethical sensitivity really resonated with him; he had almost given up on becoming an engineer due to his perception that caring for people had not been a point of emphasis. Another talked about the challenge of resolving ethical dilemmas; while I was not able to address her concern directly, I took the opportunity to share a story from my own career that illustrates the importance of paying attention to every detail and taking personal responsibility when something goes wrong. Fortunately, my mistake became apparent during construction, such that the only cost was in dollars; and because I acknowledged the error as soon as I discovered it, and made diligent efforts to rectify it, I am still employed by the same firm today.

The travel, the stimulating conversations, and the lecture itself made for a long and exhausting day; but it was a wonderful experience overall. Thanks to my interactions with those young people and their teachers, I left College Station with renewed confidence in the future of the engineering profession, as well as a reminder of my own need for lifelong learning – I clearly have some work to do on my “selfie” skills!

