

## SHARPENING OUR CONVERSATION

A recent study completed by the National Academy of Engineering entitled “Changing the Conversation” focuses on the Public Understanding of Engineering. The study can be found at <http://www.nap.edu/catalog/12187.html>. As could be expected, many of the problems facing the engineering community are similar to those found with any community related to technological literacy. The main reasons for this study were to: sustain the U.S. capacity for technological innovations, attract young people to careers in engineering, and improve technological literacy.

The study attempted to identify a small number of messages likely to improve the public understanding of engineering, to test the effectiveness of the messages in a variety of target audiences, and to disseminate the results of the message testing to the engineering community. One recurring theme was that engineering requires skills in mathematics and science, suggesting that students must have an aptitude for and strong interest in these subjects to succeed in engineering.

New positioning statements were suggested on topics such as:

- Unleashing the spirit of innovation
- Working on real-world applications
- Discovering how to improve our lives by creating bold new solutions
- Turning ideas into many realities
- Having a direct or positive effect on people’s everyday lives
- Counting on imaginations to help us meet the needs of the 21<sup>st</sup> century

The study further explored preliminary messaging themes:

- Ideas in Action
- Life Takes Engineering
- A Limitless Imagination
- Free to Explore
- Shape the Future
- An Enterprising Spirit

Other messages that were tested are as follows:

- Engineers make a world of difference.
- Engineers are creative problem-solvers.
- Engineers help shape the future.
- Engineering is essential to our health, happiness, and safety.
- Engineers connect science to the real world.

The preliminary taglines were:

- Turning ideas into reality
- Because dreams need doing
- Designed to work wonders
- Life takes engineering
- The power to do
- Bolder by design
- Behind the next big thing

The need to brand engineering was noted as necessary to appeal to:

- Teens in general
- Teenage boys
- Teenage girls
- Adults

The recommendations cited included:

- To present an effective case for the importance of engineering and value of such education.
- Adapting specific testing messages as noted.
- More research on taglines for a nationwide awareness campaign.
- To facilitate the deployment of effective messages.
- To facilitate a multiyear communications campaign.

The study can be a very good model for technology/engineering teachers who are looking to improve their promotional materials for communicating with students and parents. The engineering message has often been one of how rigorous the field is and the difficulty of mathematics and science as related subjects. Obviously, not enough of their message has been on technological literacy and what engineers do with their own subject content. This study indicates the need for more emphasis on topics that deal directly with design, technological literacy, and the good things that come from people designing, making, doing, and creating.

Technology/engineering teachers fail at a lot of these same messages. Therefore, the astute promoter of our field would do well to read this research, adjust their messages according to the findings, and complete their own communications research to better advocate their program and value of a technology/engineering education.