

ENGINEERS HOW ARE YOU CHANGING THE CONVERSATION



Strategies that Engage Students and Adults in Engineering

Engineering has an image problem. Most Americans, youth and adults alike, do not understand what engineers do and how engineering contributes to our society. And unfortunately engineers are part of the problem. All too often when engineers talk about their work, they rely on the old standby: Engineers solve problems using math and science. While technically correct, this does not paint a very interesting picture or showcase the amazing things engineers work on every day that benefit people's lives.



Engineers help shape the future! This engineering student helps a community in Ecuador build a water delivery system to carry clean, disease free water to schools and homes.

But we can fix this. By changing the conversation about engineering we can give students and adults a better understanding of how engineers are making the world a better place. From individual engineers, to educators, to corporations, to engineering societies, there are simple steps we can take today.

INDIVIDUALS

1. **Change what you say.** When you talk to friends, family and colleagues, highlight what you do and why it is important. Here's a general definition:

Engineers are improving the world all the time. They develop creative, practical solutions and work with teams of smart, inspiring people to design and build technologies that make a difference.

2. **Change your bio.** Emphasize how your job is making a difference, creative or collaborative. Give specific examples
3. **Use tested and effective engineering messages or taglines** on your email signature. (*see box for examples*).
4. **Do stimulating hands-on activities** with kids. Choose explicit engineering activities that address a societal need, solve a safety issue, or lessen an environment impact. Go to the activity archive in the

Discover E K-12 section of www.eweek.org. *Harmless Holder, Better Water, Shaky Ground, Clean It Up, Sun Central, and Helping Hand* are just a few examples.



Engineers are creative problem-solvers! These engineering students worked together to design, build, and race this concrete canoe.

5. **Learn more!**
 - Visit Changing the Conversation's website at www.engineeringmessages.org
 - Like us at www.facebook.com/engineersCTC
 - Attend a training. Sign up for EWeek's newsletter at info@eweek.org and watch for upcoming training dates.

Effective Engineering Messages and Taglines

- 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.
- Turning ideas into reality®.
- Because dreams need doing.

ORGANIZATIONS

1. **Change what you say** about engineering by using and adapting the tested and effective engineering messages and taglines in your advertising, community outreach, and recruiting efforts.
2. **Change the images** you use to promote engineering. Emphasize people, not things, to showcase the field. See, for example, www.engineeryourlife.org.
3. **Change how you talk** about engineering with students.
 - Add the engineering messages and context to outreach activities and classroom activities.
 - Choose explicit hands-on engineering activities for kids that address a societal need, solve a safety issue, or lessen an environment impact.



4. Train others

- Change how your colleagues and volunteers present engineering.
- Download and customize Changing the Conversation's powerpoint presentation at www.engineeringmessages.org

Engineers make a world of difference!

Engineers can volunteer in projects around the globe. Here, young engineers work with a community in Belize.

National Engineers Week Foundation is working in partnership with the National Academy of Engineering to encourage the widespread adoption of these effective messages. Funding for this tip sheet was provided by the United Engineering Foundation. Overall program support was provided by the National Science Foundation.

What is the Changing the Conversation Project?

Changing the Conversation is a project overseen by the National Academy of Engineering. The project's 2008 report contains research data that informed creation of a positioning statement, messages, and taglines for improving public understanding of engineering.

It can be downloaded free here:

http://www.nap.edu/catalog.php?record_id=12187.

The project also offers an online messaging toolkit (www.engineeringmessages.org) containing over 130 messaging examples, CTC-themed postcards and other downloadable materials, a messaging-focused blog, and a membership community.



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