Engineering Literacy: Reaching Beyond the College

Understanding and appreciating the role of engineering:

K-12 initiative

As noted by the National Academy of Engineering (NAE) and National Engineers Week Foundation, among others, “Engineers have an image problem.” Nationally, there is a lack of understanding concerning what engineers actually do and the role they play in designing and creating technology.

The NAE initiated its “Changing the Conversation” project to help others realize how engineers are making the world a better place. The focus is on problem solving, creativity and impact: concepts that can help attract more young people to engineering careers.

The College of Engineering is tackling this challenge in the state of Nebraska, focusing especially on K-12 students to provide consistent messaging and exposure to engineering concepts and technological advances. Our goal is to educate Nebraskans on how engineering affects and interacts with their daily lives. We will do this via a variety of strategies, including:

• Using the NAE’s 14 Grand Challenges as a focal point for engineering literacy efforts
• Creating an alliance of stakeholders: educators, industry leaders, government officials, parents, engineering professionals, and others
• Creating and promoting enhanced messaging throughout the state
• Providing support and training in engineering literacy and technology as teaching tools
• Advocating for widespread STEM awareness


Nationwide, most students are graduating with only a minimal understanding of one of the most powerful forces shaping society today.

Report of the International Technology Education Association