The Center for Nanotechnology in Society
ARIZONA STATE UNIVERSITY

Increasing Empathic Capacity in Engineering Students

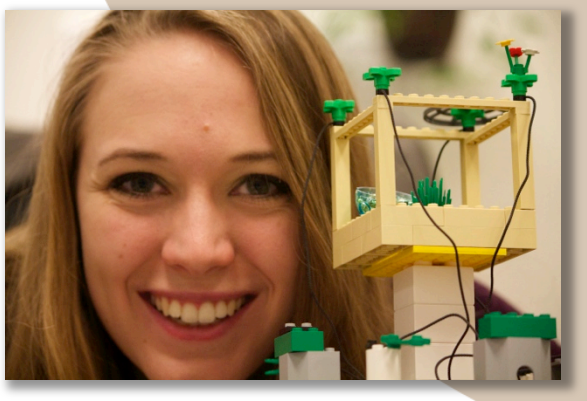
Improving the social and emotional intelligence of scientists and engineers can help them connect with a broader public about their research, as well as anticipate its long-term societal outcomes, two goals of CNS.

To that end, CNS provides financial support to graduate student Kaitlin Vortherms, who is exploring the potential of alternative education interventions, such as Lego Serious Play, improvisation training, and travel, to increase engineering students' capacity for empathy.

Vortherms helped develop and launch a Nano Ethics At Play (NEAP) course, a series of four three-hour classes where students use Legos to facilitate discussion of ethical, environmental, social, and economical implications of emerging nanotechnologies. She will conduct follow-up research to assess whether participants' empathetic capacity is improved.

Vortherms, who was crowned Miss Phoenix 2015, feels her pageant experience has helped her learn how to better connect with people and society, skills she believes are necessary for successful engineering, particularly when engineers are working in cultures and communities very different from their own.

She adopted STEM education reform as her pageant platform and continues to engage with a broad audience about STEM through social media and at local events. For example, she hosted an event for parents, educators, and children to explore how the popular Minecraft video game can be used to benefit STEM education and is working with Microsoft to develop a series of related educator workshops.



CNS Fellow **Kaitlin Vortherms** is a graduate student in ASU's School of Sustainable Engineering. She has collaborated with **Dr. Ira Bennett** and **Dr. Jameson Wetmore**, who lead the CNS-ASU education and outreach efforts.

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