

Break Out Session Report: Building a Community and Growing a Movement


NAE
GRAND
CHALLENGES
SCHOLARS PROGRAM




NATIONAL ACADEMY
OF ENGINEERING




WHAT METHODS/PLATFORMS CAN WE EMPLOY TO SOLIDIFY, GROW, CONNECT AND ENRICH THE GCSP COMMUNITY AND ITS ALUMNI?

- Articulate our goal and purpose.
 - Succinct vision/mission statement.
 - Create taglines for the GCSP.
 - Centralized marketing/message on benefits.
 - Branding to help get external partners. Challenge: Hard to explain. Different on each campus.
 - Powerful media: video about mindset and power; focused on real personal stories. Possible industry collaboration.
 - Events: Regional meetings, seminars, Hackathon, Annual conference.
 - Sharing best practices/experiences...both students and administrators/professors.
 - Involve students in planning, building, and expanding the program; GCSP Scholars in Residence Program.
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METHODS/PLATFORMS CONTINUED...

- Social networking: Wiki page to share experiences, LinkedIn community, MOOCs, etc. National and international networks. Connect students and faculty.
 - *Platforms don't make networks work; people make networks work.*
 - Provide tangible benefit other than name on NAE website.
 - Produce something for all (frame-able plaque, NAE medal and certificate, etc.).
 - National award for best students/teachers.
 - Advertise to students and educators about unique, resume-building experience.
 - Informal opportunities to connect, such as ice breakers at the Global Grand Challenges Summit. Connect students where they are.
 - Call deans at other parts of school, challenge them to co-teach course on Grand Challenges. Talk to Provost and President about challenges in your region.
 - Evidence-based research on benefits to alumni life as opposed to those who did not participate in program.
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HOW DO WE EXPAND VERTICALLY TO K-12, COMMUNITY COLLEGES AND EVEN TO MASTERS PROGRAMS?

- Share existing programs in school systems across the country: Edison H.S. (Fairfax County, VA), Tesla H.S. (Redmond, WA), STEM Early College H.S. (Raleigh, NC), etc.
 - Start with individual teachers injecting the GCs into individual courses.
 - Need ways to reassure parents that new programs incorporating the GCs in K-12 will be well-accepted in universities.
 - Partner with existing programs like FIRST, Launch, Project Lead the Way, Project Works, EPICS, camps at universities, Girl Scouts, etc. and inject GCs.. Can satisfy “Service Learning” requirement.
 - Challenges in high school: Could it become part of credit for college admissions?
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VERTICAL EXPANSION CONTINUED...

- STEM outreach program on campus/Build relationships with local communities schools: Students go to schools during the week with lesson plans and passion. Could also bring students to campus.
 - Look at framework from NGSS and make sure GCs align.
 - Informal education is an opportunity. Need parents to get onboard through hands-on activities. Frame engineering as altruism.
 - Scholarships (\$) for high school students to go into GCSP.
 - Extend the GCSP up into Masters programs.
 - Transfer desired GCSP outcomes to graduate students.
 - Allow students to help define the problem.
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WHAT ARE THE BEST WAYS TO CONNECT ENGINEERING HORIZONTALLY ACROSS DISCIPLINE BEYOND STEM?

- Need courses and projects early on that provide introduction to GCs, for both engineering student and non-engineering students. Create highly interdisciplinary general education course.
 - Inject engineering/GCs into required science classes.
 - Form an institute that connects various colleges on campus.
 - Engineering plus “X” degrees.
 - Arts, nursing, computer science, etc. majors showing their contributions to the GCs through poster sessions and invite university leaders.
 - Reach out local K-12 , so that students know about engineering and the GCs early on.
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PARKING LOT ISSUES

Not at this time!