

Unsuccessful OpenCon 2016 Application

- *Describe yourself in 1-2 sentences.*
I am a mechanical engineer and professor interested in open dissemination of all engineering knowledge including, research, design, software, and educational resources.
- *Which academic degrees have you attained, if any?^*
['bachelor', 'master', 'phd']
- *skills*
(['community', 'fundraising'], '')
- *need rating1*
True
- *The biggest goal of OpenCon is to catalyze action. What ideas do you have for advancing Open Access, Open Education and/or Open Data, and how would you use your experience at OpenCon to have an impact?*
As previously stated, I am interested in promoting and enabling the broad dissemination of engineering knowledge. Currently the culture and tools to make this happen are common only in disjointed pockets within the broad engineering field. For example, fundamental engineering science might be uploaded to Arxiv.org, computational or other software work has resources such as Github and the open source software movement, and there is the open source hardware/making community. However, these various options leave much of engineering design and development effort without the tools or disciplinary culture to promote open dissemination. My goals are to start tackling this issue through the creation of the necessary resources and building a community around the concept of "Open Engineering". My first effort in this direction is a completely open and transparent journal called The Journal of Open Engineering (www.tjoe.org). This new effort intends to push engineers to make available artifacts from the entire engineering design/development process upon publication. My next, and parallel, initiative is to create a preprint server for engineering. I have been discussing with the Center for Open Science about using their forthcoming preprint service to host this while branding it as the ENGRxiv. Things I would like to learn about at OpenCon are ways in which to cultivate a culture of openness within a field and best practices for doing so in order to further these initiatives.
- *What is your primary occupation?^*
['professor']
- *First / Given Name*
Devin
- *How many years have you worked in a career full time? For the purposes of this question, please do *not* include time when you were a full time student or working full time as a PhD candidate.^*
1-5 years
- *Country of Citizenship^*
United States of America
- *Country of Residence^*
United States of America
- *For the events you checked, please explain how you participated and/or how you plan to participate.*
I believe that Open Access Week would be a good opportunity to drive a discussion around

Open Engineering and what openness in engineering can and should look like. Perhaps inviting some of the more successful open engineers to write editorials for The Journal of Open Engineering to be released that week. I would hope to gather other ideas as OpenCon. For Open Education Week, I think it would be interesting to hold an open engineering resource sprint. Gather individuals in a collective (online) effort to build out the open resources in engineering.

- *OpenCon is a global event that seeks to bring together participants regardless of their ability to pay for travel and expenses. Therefore, we seek to allocate our limited scholarship funding carefully to the participants who need it most. How likely would you be able to raise or contribute funding to your attendance at OpenCon 2016 if invited?*

i_can_pay_large_part

- *Are you planning to participate in any of the following events in the next year? Have you participated in any of them in the past?^*
['openaccessweek', 'openeducationweek']
- *Which expenses would you need a scholarship to pay for?*
['conference_fee']
- *Why are you interested in Open Access, Open Education and/or Open Data and how does it relate to your work? If you are already involved in these issues, tell us how.*

One area of engineering that I work in is humanitarian engineering or engineering for disadvantaged populations. Through my work in this area, I have become more aware of how capable people are if they are only provided the tools necessary to be successful. By making engineering knowledge freely available we can increase the capacity of communities and individuals to affect change for themselves. This can be accomplished in part by assuring the products of engineering research, engineering design, and engineering education resources are available to anyone who would benefit from them. We have of course seen that open access can benefit the advancement of a field itself, but beyond that, great benefit can be provided to communities in developing nations or persons with disabilities. For these reasons I think that providing the means, resources, and incentive for dissemination of engineering knowledge is a just cause that warrants further effort.