The #SciFund Challenge:

Using a crowdfunding model to support science research

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Abstract:

As budgets from traditional funding agencies shrink and a weak economy limits the funds of non-government sources, scientists must explore alternative sources of revenue to support continuing research. In an organized effort to explore the potential for popular support of scientific research, The #SciFund Challenge recruited over 200 science researchers in 2011 to participate in a crowdfunding experiment. Although major instrumentation and research funding still relies on large grants, there is an ever-growing segment of the scientific research population that can make significant progress with more modest support. The participants in the #SciFund Challenge developed proposals and promotional material that take advantage of the power of social media to leverage small contributions from large numbers of people into meaningful sums for the support of wide-ranging research. An overview of the #SciFund Challenge and results will be presented.

Research Funding:

The traditional science funding paradigm involves applying for a grant from a big agency with a huge pot of money in the hopes of being awarded some small portion of that money. The proposal process is often quite elaborate, the review process tedious, and the likelihood of "winning" a grant is continuously decreasing as budgets are stretched thinner and thinner. A big grant proposal could very often be a make-or-break moment in the career of a faculty member.

Crowdfunding:

Since the beginning of time, charities have used a very different funding model. Rather than relying upon large donations from one or two wealthy investors, charities solicit modest contributions from a large number of contributors ("the crowd"). With the development of online social networks, this mode of fundraising has expanded to a larger audience and beyond charities. People in the arts community developed crowdfunding as a legitimate way to raise the relatively modest sums required to fund an independent film or CD release or other creative project, often just a few thousand dollars.

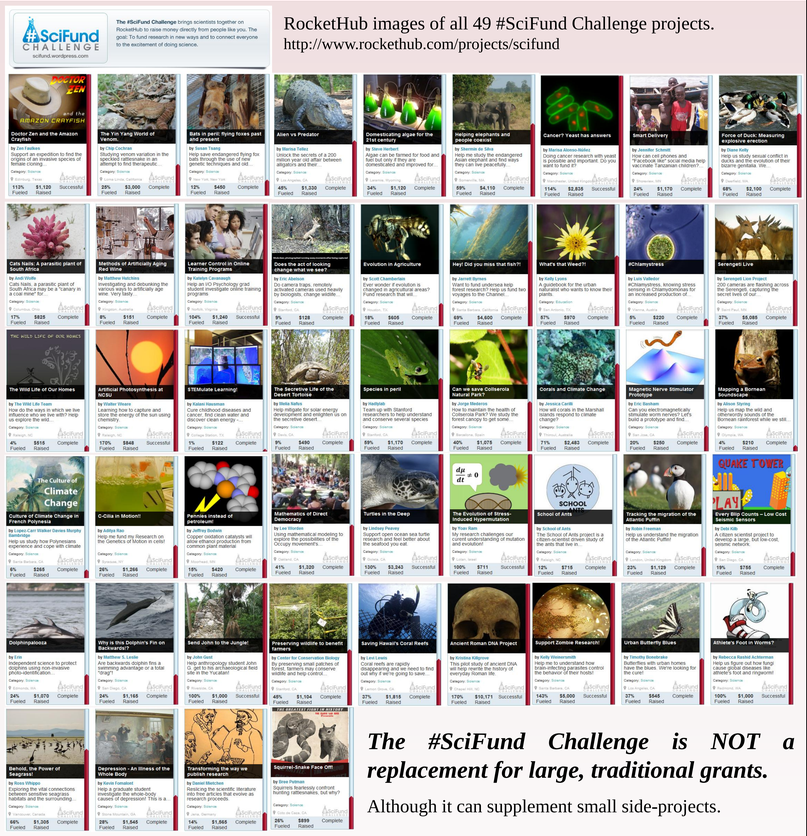
Enter the #SciFund Challenge:

If crowdfunding ("micropatronage") could work for the arts, would it be possible to raise research funds for *science* using a crowdfunding model? This question lead two evolutionary biologist to formulate the #SciFund Challenge, an experiment in using online crowdfunding to fund modest scientific research. The #SciFund Challenge was not the first attempt to crowdfund a science project, but it was a coordinated effort to bring together a community of scientists worldwide in a group effort to raise funds.

Jai Ranganathan and Jarrett Byrnes shooting a promotional #SciFund Challenge video (left) and looking a little tired on closing night of the #SciFund Challenge (right). Pictures from: http://scifund.wordpress.com/blog/

The Super-Secret Hidden Agenda:

Outreach! A relatively large initiative like this brings more public attention to science, makes the scientists involved better communicators, and gives contributors a sense of ownership. Go SCIENCE!



RocketHub images of all 49 #SciFund Challenge projects.
http://www.rockethub.com/projects/scifund

The #SciFund Challenge is NOT a replacement for large, traditional grants.

Although it can supplement small side-projects.

Who was the #SciFund Challenge?

49 projects (40 biology, 3 education, 3 chemistry, 2 geology, 1 mathematics; 6+ countries)

Funding targets: $500-$20,000

Average target: $4601

Median target: $3500

Funds raised: $122-$10,171

Average raised: $1546

Median raised: $1075

Average contribution: $54

Projects meeting target: 10/49

Average % of target: 48

Best indicators of a successful project:

Page views – on average across all projects, every ~50 page views resulted in a contribution

Established network, especially via a blog and Twitter

Reachable funding target – in some cases, contributions accelerated *after* the target was reached

Cute animals and creepy/gross description don't hurt

Pennies instead of Petroleum:

Funding for Pennies instead of Petroleum is being used to support synthetic inorganic research into copper complexes that can be used as oxidation catalysts. To make the project more non-science-friendly and to incorporate some appropriate buzzwords, I chose to emphasize the use of these copper catalysts ("Pennies") as a means to degrade lignin in the digestion of woody fibers in the production of biofuels ("instead of Petroleum"). This is a bit of a stretch, but it sounds much more catchy than "exploring the effect of methyl substitution on the optical and redox properties of pyridine-bis-amido copper(II) complexes in solution".

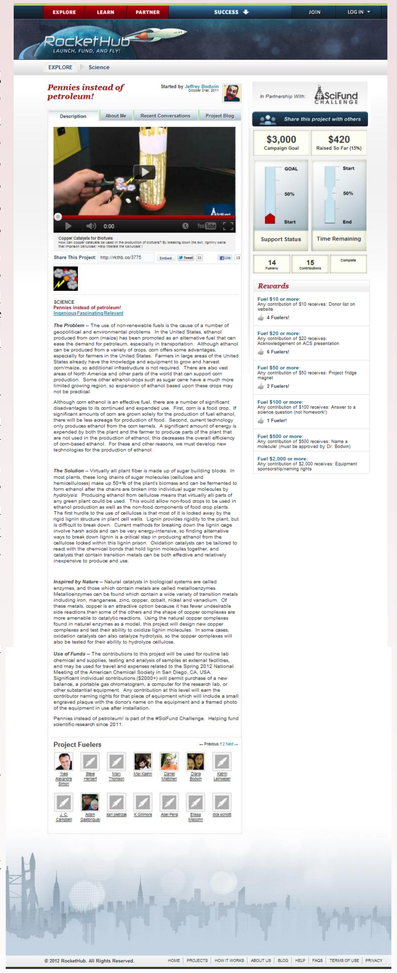
The initial project goal was $3000. From a purely numerical perspective, Pennies instead of Petroleum was not successful with a final tally of $420, only 14% of the goal. Personally and professionally, Pennies instead of Petroleum was a very positive experience as it forced me to distill my research program down to an elevator speech and really think about how to present chemical research to non-scientist.

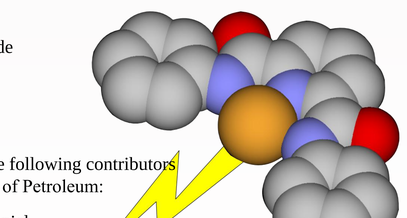
Positive aspects of my #SciFund Experience:

1. Increased my use and awareness of social media for professional and pedagogical purposes
2. Improved my "elevator speech"
3. Registered my own domain, www.drbodwin.com
4. Raised $400 for research, not much but enough to make some progress

Things I would have done differently:

1. Start with a more established social network identity
2. Explain the project better
3. Be more shameless with friends and family
4. Set a more modest funding target
5. Describe the project more simply and include more pictures on the project page





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