How Foundations and Non-Profits Are Using Prize Challenges to Achieve Their Missions

Introduction

The non-profit sector (or Independent Sector/Third Sector/Voluntary Sector) plays a critical role in society worldwide, investing in and delivering solutions to a broad array of problems. In the U.S. alone, there are over 1.5 million registered non-profit organizations, including public charities, private foundations and other non-profits. This sector makes up some 5.5% of the nation’s GDP, and represents 10% of the workforce. The dollars invested in important issues such as healthcare, education, arts and culture, human services, and others are formidable. The Foundation Center’s ‘FC 1000’ foundations alone made over 150,000 grants totaling over $22 billion in 2012.

Given such significant effort and investment, foundation and non-profit executives understandably pay a lot of attention to how they can best leverage their resources in order to achieve their missions – how to make the most impactful grants, most effectively deliver programs, and develop innovative approaches to solving society’s problems.

One approach increasingly being used by this sector is the Prize Challenge. We’d like to take a look at why these competitions, or Challenges, make sense for foundations and non-profits within the context of their more traditional activities, in what circumstances, and how they can most effectively be used to further the very important missions of non-profit organizations.

What is a Challenge?

A Challenge is an open innovation tool used to pose a specific problem or ask a specific question, and crowdsources the solution. An award is offered to whoever best solves it. These are inducement prizes to spur new, creative ideas and solutions to often intractable and difficult problems, not recognition prizes for past achievements (like the Oscars or the Nobel Prize).

Challenges have been used for centuries to drive innovation, from the 1714 Longitude Prize launched to incent the development of an accurate measurement of marine longitude, to the Orteig Prize in 1927 for the first
solo transatlantic flight, won of course by Charles Lindbergh. Today, we are still looking for ways to spur creative approaches to intractable problems, and if anything, Challenges can now be more effective than ever in finding solutions. We have the decided advantage of modern technology to broadcast Challenges instantly and globally, reaching far greater pools of potential solvers, and a growing culture of open innovation and crowdsourcing that encourages participation. It’s no wonder that interest in and the use of Challenges is building.

Why Use Challenges?
The non-profit sector runs on grants – they are its life blood. Foundations distribute grants in order to invest in promising solutions, and charitable organizations rely on them to fund the programs that deliver those solutions. But grants have their limitations.

• Grants are typically awarded to recipients known to the grant making staff, or even if awarded as the result of an RFP process, they are typically given to ‘usual suspects’ in the field. This approach inherently limits the pool of people addressing a particular problem, and excludes some of the out-of-the-box thinking and fresh perspectives from experts outside the field.
• Because they are targeted to a limited pool of recipients, grants also fail to excite and mobilize a broader community to engage in the issue.
• While there is an increasing emphasis on measurement of impact and results in the non-profit sector, grants are still typically focused on activity – or “pay for work” – as opposed to “pay for success.” Grants, therefore, place all the risk on the grant maker.
• Grants are well-equipped to support broad issues and problems, but are less well-equipped to focus on a very specific desired outcome, especially when the route to the solution is unknown.

To award and spend grant funding wisely is critical to the health of the non-profit sector. Grants enable essential services to be delivered and provide ongoing support for vitally important programs. But as central as grants are to the non-profit sector, Challenges can be a very effective way to augment and address some of the limitations of traditional grant programs.

Advantages of Challenges
Non-profit organizations employing challenge-driven innovation to address key problems find a number of benefits.

Challenges can attract a broad and diverse pool of ‘solvers,’ often people outside of a given field, who bring a fresh perspective to a problem, or who can bring to bear principles from a different field and apply them in new ways.
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**Example**

After 18 years of effort to find an effective way to clean up frozen oil from the Exxon Valdez spill, the Oil Spill Recovery Institute (OSRI) sponsored a Challenge seeking new solutions. The solution came not from the oil industry at all.

“The solution uses technology found in the construction industry. We never would have found this through our regular process.” – Scott Pegau, Research Program Manager, OSRI

It is interesting to note that even back in the 1700s, the winner of the Longitude Prize was a self-educated carpenter and clockmaker, and not an astronomer, as everyone had expected. If the sponsors of the prize had given a grant to the “usual suspects” the solution would not have been found.

**Challenges can focus attention on a particular cause or organization,** sparking the public’s attention in ways that attract new supporters and participants.

**Example**

The Geoffrey Beene Alzheimer’s Initiative (GBFAI) sponsored a Global NeuroDiscovery Challenge focused on identifying male/female differences in the pathogenesis and presentation of Alzheimer’s Disease. In addition to finding answers to their questions, their objectives also included maximizing the number and geographical reach of Challenge participants, building the GBFAI brand, and raising awareness of the need for more research into gender differences in Alzheimer’s Disease.

“Innovation challenges are strategic to the goals of a foundation like ours which seeks to inform and infuse the science with fresh thinking, promote “big data” mining to tease out breakthroughs, piggyback on public investments, and mobilize advocacy.” – Meryl Comer, President & CEO of GBFAI

**Challenges pay for success,** and shift the risk from the funder/sponsor to the solver. A Challenge sponsor sets the criteria for winning an award, and only if and when those criteria are met is the award paid. For large problems requiring long-term work to realistically develop a solution, interim prizes can be awarded at certain milestones, but again only when solvers meet established goals or at the discretion of the sponsor.

**Example**

In 2006, Prize4Life was formed to “accelerate the discovery and treatment and a cure for ALS by using powerful incentives to attract new people and drive innovation.” A $1 million prize was offered for the first person to identify an ALS biomarker – clearly a big task. Nearly 3,000 solvers responded and over 100 solutions were submitted. By 2007, Prize4Life awarded $75,000 in “Thought Prizes” to five particularly promising concepts. By 2009, they awarded $100,000 “Progress Prizes” to two solver teams for their achievements. At each step, they broadcasted results to the ALS community. In 2011, the full $1 million was awarded.
When to Use Challenges

Challenges are particularly effective in the following circumstances.

When you want to attract novel ideas or solutions to a specific, well-defined problem
Grants are useful in supporting broad programs and projects. But if you have a specific, well-defined problem, you know the outcome you require but not the route to get there, a Challenge can be very effective in finding solutions.

Example
Reducing infant mortality is a persistent problem in developing countries, with numerous contributing factors, and grants are supporting many programs and organizations that address this issue. However, seeking a breakthrough to one specific contributing factor to infant mortality, Scientists Without Borders ran a Challenge to find ways to reduce infant mortality by fortifying staple foods with folic acid. The Challenge elicited 64 submissions from 21 countries, and three solvers - from New Zealand, India and the U.S. - shared the prize. The sponsors went on to publish the winning ideas so that other innovators around the world could build upon them, implement them, bring them to scale.

“We are thrilled that our unique model for leveraging collaboration and open innovation yielded such promising approaches to accelerating progress in this crucial area.” – Shaifali Puri, Executive Director of Scientists Without Borders

When work can be done by an individual with minimal resources
Some problems, such as landing a man on the moon, take considerable resources and the work of large teams. However, breakthroughs, big ideas, and novel solutions can often be found by individuals or small teams working with very few resources - harnessing the power of the iconic innovator in a garage, if you will.

Example
Solar flares have destructive effects on the Earth’s infrastructure, and also put astronauts at risk when in space. For many years, physicists at NASA have worked to understand solar flares, predict their onset and intensity, and thus minimize danger to astronauts, but were hampered by a lack of easily available data. NASA looked beyond their formidable team of solar physicists for solutions, and launched a challenge to improve the algorithm that predicts solar flares with plenty of lead time. A retired radio frequency engineer from New Hampshire, working on his own, proposed a way of using ground-based data, winning the prize. His solution was then tested and built into NASA programs.

When the pool of existing solvers is too small
Communities of experts in narrow specialties, rare diseases, and so on can be small. A Challenge can galvanize potential solvers around the world and previously unknown to a sponsor, including solvers in related or even completely different fields of expertise.
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Example

Because of the rarity of chordoma, a type of cancer that occurs in the bones of the skull and spine, there is not an abundance of researchers focused on the disease. The Chordoma Foundation wanted to secure chordoma cell lines to use in research, but it was unclear which labs to fund. Instead, they launched a Challenge to spur labs around the world to develop the cell lines required, including labs not previously working on chordoma research.

*We wanted many labs to try their hand at developing chordoma cell lines; the more attempts, we thought, the more likely that at least someone would succeed.*” – Josh Sommer, Executive Director, Chordoma Foundation

When you need fresh ideas and perspectives

Good ideas can come from anyone or anywhere. Challenges can cast a wide net to involve solvers worldwide, providing the sponsor with ideas and perspectives they would never get from their established networks. Also, submitted ideas can be judged “blind” so that ideas from a grad student, parent, expert in a different field, or amateur tinkerer (rarely the recipients of grant funding), can be brought to light. In fact, it is often that winning solutions come from outside the field that is the focus of a given Challenge.

Example

The North Louisiana Community Foundation wanted to address poor educational outcomes for students in Caddo Parish, and specifically sought new ideas for improving third grade reading scores, since ability to read by third grade is fundamental to better educational achievement. They issued a Challenge to get the best ideas they could from anywhere in the world.

*“Typically we rely on non-profit organizations to present ideas through our competitive grants process. By [hosting a Challenge] we opened up the pool of idea contributors to include individuals...and we were able to tap into ideas generated outside our community.”* – Paula Hickman, President, North Louisiana Community Foundation

Combining Grants and Challenges

Challenges and grants are not an either/or proposition, but rather can be combined to great effect. An organization may sponsor a Challenge to identify solvers with promising approaches, award a prize, and then support the development or implementation of a winning idea with a grant.

Example

The Geoffrey Beene Global NeuroDiscovery Challenge awarded prizes for the best hypotheses. However, the sponsor’s ultimate goal didn’t end with the Challenge. They wanted to continue to spur innovative research in male/female differences in Alzheimer’s Disease, and so they proceeded to support
the winning teams with grants that would fund and support their ongoing work. Finalists were invited to produce video pitches of their hypotheses, and grants were awarded based on crowdvoting, which took place online and at an Alzheimer’s research conference.

Criteria for Successful Challenges

Just as grants need to be structured appropriately to be successful, there are certain criteria that need to be in place for a Challenge to achieve the desired result(s).

Carefully define the problem you want to solve
As Albert Einstein said, “If I had an hour to solve a problem I’d spend 55 minutes thinking about the problem and 5 minutes thinking about solutions.” Being very clear about the outcome you desire and the specific question you want answered is critical. Otherwise, you’ll get great solutions that don’t meet your needs.

Set an appropriate award amount
To motivate solvers, they need to see that a reward is commensurate with the effort expended and value of the solution. The good news is that many people will put in extra time and effort on Challenges that are for the public good. But if you are asking solvers to put in hundreds of hours over a long period of time, you need to offer a substantial award.

Ensure time/resources are in place to support the process
Challenges take time and resources to organize, run, and judge. Many non-profits recruit volunteer advisory panels to help frame a Challenge question and judge the submissions. This is particularly useful for small organizations that don’t have the in-house capacity or expertise, but even for larger organizations this can be a good way to engage a broader community in the process.

Promote so that you reach the right pool
Market and promote your Challenge broadly, but also in ways that ensure that you reach pools of potential solvers outside of your immediate community. How and where a Challenge focused on third grade reading scores is promoted, for instance, will be very different from the promotion plan for a Challenge looking for chordoma stem cell lines.

Establish measures for success at the outset
How will you know if you have succeeded with your Challenge? Of course finding the exact right answer is one obvious measure. But don’t stop there. What about building new audiences, broadening the community of people working on your issues, attracting new funders, and building awareness for your mission and organization?

Plan what you’ll do with the solution
You don’t want your great solution to sit on the shelf. Most non-profits plan to publish their results, but give careful consideration to what you
will do with your solutions(s) so that it can be successfully launched and brought to scale. Do you need a partner to commercialize or implement the solution? Do you need to plan for a series of grants to support development?

Conclusion

The non-profit sector is large and diverse, and enormously creative in finding ways to make the world a better place. Foundations and non-profit organizations employ many approaches to achieve their missions. They utilize grants, they collaborate with partners, they advocate for change, they fund research, publish, and promote. In addition to these traditional approaches, imagine if we exponentially increased the numbers of people focused on the plethora of critical issues that non-profit organizations work on every day. Imagine if we tapped the ideas, imagination and innovation of a worldwide community of solvers to help in this great work. That is the power of Challenges.

Endnotes

1. National Center for Charitable Statistics (NCCS)
3. Foundation Center, www.foundationcenter.org