THE CASE FOUNDATION

Promoting Innovation:
Prizes, Challenges and Open Grantmaking

A report from the conference hosted by the Case Foundation, the White House Office of Science and Technology Policy, and the White House Domestic Policy Council.
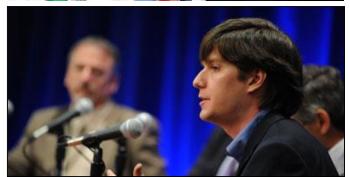
By Brad Rourke, the Mannakee Circle Group

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Public Participation for Better Decisions panel; An Ignite Session roundtable discusses new prize ideas; Charlie Brown, Executive Director of Ashoka's Changemakers; and Robynn Sturm, Asst Deputy CTO, White House Office of Science and Technology Policy, moderates the conference

Front cover photos (left to right):
Jeff Zients, US Chief Performance Officer; Sonal Shah, Director, White House Office of Social Innovation and Civic Participation and Andrew Petro, Program Executive for Innovation Incubator; and Jean Case, CEO, the Case Foundation and Vivek Kundra, US Chief Information Officer.

Aneesh Chopra, the nation's first Chief Technology Officer, moderates the Promoting Innovation Ignite session.

"The productivity boom has transformed private sector performance over the past decade, but the federal government has missed out… and lags far behind in terms of efficiency and service quality. The American taxpayer deserves more bang for their buck."

– Jeff Zients, Chief Performance Officer of the United States

Introduction

On Friday, April 30, 2010, over 200 individuals representing more than 35 government agencies and 35 private sector and nonprofit organizations gathered in Washington, DC for a landmark daylong strategy session jointly convened by the Case Foundation, the White House Office of Science and Technology Policy, and the White House Domestic Policy Council. The conference, *Promoting Innovation: Prizes, Challenges and Open Grantmaking*, brought the private and public sectors together to discuss lessons and strategies learned from experiments in prizes, challenges and open grantmaking.

This gathering was an extension of the Case Foundation's continued efforts to encourage citizen involvement in decisions that affect them, the Obama Administration's Open Government Directive issued in December 2009, and the newly-released OMB Guidance on the Use of Challenges and Prizes.

This report recaps some of the key learning from the conference, focusing on takeaways rather than giving a talk-by-talk account of the sessions. (The full agenda is available here, and speaker biographies here, both pdf.) Quotes are by the participants and panelists except where indicated.

Beth Noveck, Assistant Deputy Chief Technology Officer for Open Government, delivers the closing remarks

About Prizes, Challenges, and Open Grantmaking

Prizes and challenges are nothing new. The X Prize, for instance, is modeled after the $25,000 Orteig Prize of the 1920's which Charles Lindbergh won by flying from New York to Paris in 1927. Long before that, reported McKinsey & Company consultant **Jonathan Bays**, who co-authored *And the winner is . . . : Capturing the Promise of Philanthropic Prizes*, governmental and nongovernmental prizes have spurred important innovations. The Longitude Prize of 1714, offered by the British government, resulted in the marine chronometer and drastically improved shipping safety. Napoleon Bonaparte's 1800 food preservation prize resulted in the advent of canning as we now know it.

As Case Foundation CEO **Jean Case** noted in her blog post and welcoming remarks, the recent growth of social media technologies has led to a renaissance of prizes and challenges amongst the private and philanthropic sectors. "Today's drive toward transparency, social media and Web 2.0 are enabling this model," Case said. New technologies empower organizations to generate thousands of possible solutions, to enlist a community of thousands to help surface the most worthy ones for more careful consideration, and to build on one another's ideas.

Indeed, the McKinsey study identified more than sixty new prizes of more than $100,000 each having debuted since 2000."The outlook for prizes is strong," reported Bays, "and we expect to see continued growth and innovation."

In addition, increasingly interactive web-based applications have led to the emergence of a new strategy - open grantmaking – that shares the fundamental idea behind prizes and challenges: to identify problems that need solving, and encourage as wide a range of people as possible to try to solve them, providing incentives for success. For instance the Case Foundation's Make It Your Own Awards initiative, a challenge to communities to decide collectively on a civic engagement initiative and compete for a number of grants, was mounted in 2007 and used an open application-and vote system to surface the most promising ideas.

"Today's drive toward transparency, social media and Web 2.0 are enabling this model"

– Jean Case, the Case Foundation

Until recently, the U.S. Government had lagged behind the private and philanthropic sectors in making full use of prizes as vehicles for driving innovation. Committed to bringing the top talent and best ideas to bear on our nation's most pressing problems, the Obama Administration recognizes the role that prizes can play to spur innovation. In the *Strategy for American Innovation* whitepaper released September 2009, President Obama directed Federal agencies to "harness the inherent ingenuity of the American people" in part through using prizes and challenges. In March 2010, the White House Office of Management and Budget issued a memorandum to all heads of the Executive Departments and Agencies affirming the Administration's commitment and providing a policy and legal framework to guide agencies in utilizing prizes to stimulate innovation to advance their core mission.

In light of these commitments, one challenge is to bring the learning of nonprofit, business, and philanthropic organizations in this area to the public arena. As a *Washington Post* article notes:

> **"Whatever you call this new way of doing business, it represents a dramatic departure from the norm for the bureaucratic, command-and-control federal government. To be sure, the agencies won't abandon the traditional method of doling out grants to predictable bidders. But in the new era of innovation-by-contest, the government will sometimes identify a specific problem or goal, announce a competition, set some rules and let the game begin."**

This challenge gave rise to the April 30th strategy session, *Promoting Innovation: Prizes, Challenges and Open Grantmaking*.

More Bang for the Buck

In his opening remarks, **Jeff Zients**, the nation's first Chief Performance Officer, pointed to the transformative power of prizes and challenges. "The productivity boom has transformed private sector performance over the past decade," he said, "but the federal government has missed out on this transformation and lags far behind in terms of efficiency and service quality. The American taxpayer deserves more bang for their buck."

He and his team seek dramatic improvements in efficiency and productivity, and place openness and transparency at the center of this effort. "Openness," he said, "accelerates innovation, by allowing us to engage the best minds to find the best solutions."

Zients' office prepared a [memo giving guidance](#) to heads of executive departments and agencies on how (and whether) to use prizes and challenges to further the administration's Open Government goals. The memo outlines a number of benefits that can arise from using prizes and challenges (see box).

Many of these themes played out over the course of the conference:

Engaging the Best Minds

The ability of prizes and challenges to generate transformative innovation by engaging the best minds was sounded in different ways by different speakers and participants throughout the day. **Peter Diamandis**, chairman and CEO of the X Prize Foundation, pointed in his keynote talk not only to the achievements of the winning entry in the [Ansari X Prize](#), SpaceShipOne, but also to the fact that "we created an ecosystem of teams," all of whom were focused on being the first commercial manned flight into space. "The prize made people come out of the woodwork." Meanwhile, panelist **Rob Armstrong**, vice president for global external research and development at Eli Lilly -- an early mover in the recent renaissance of prizes and awards -- pointed out: "Research beyond our walls is what we are trying to tap into."

Indeed, prizes are often won by an unlikely individual. Lindbergh was a long shot, dismissed by better-funded contemporaries. [John Harrison](#), winner of the Longitude Prize, was a clockmaker, not a navigator.

Benefits to using prizes and challenges

- Can establish an important goal without having to choose the approach or the team that is most likely to succeed

- Allows sponsors to pay only for results

- Can highlight excellence in a particular domain of human endeavor to motivate, inspire, and guide others

- Can increase the number and diversity of the individuals, organizations, and teams that are addressing a particular problem or challenge of national or international significance

- Can improve the skills of the participants in the competition

- Can stimulate private sector investment that is many times greater than the cash value of the prize

- Can attract more interest and attention to a defined program, activity, or issue of concern

- Can capture the public imagination and change the public's perception of what is possible

[Nicholas Appert](#), winner of the French food preservation prize, was a confectioner. This illustrates a point made in another context by Harvard Business School professor **Karim Lakhani**, who made a separate study of 166 recent prize competitions: "Problems that have a high degree of technical uncertainty benefit the most from diversity [of entrants]. Winners are often technically and socially marginal."

Establishing a Goal, Not a Process

A key benefit to this approach, especially (but not only) for large institutions, is that it allows organizations to describe the problem that they are wrestling with, without specifying how it should be solved. (If they knew how best to solve it, it would not be a problem.) With the right incentives, large numbers of people can be set to work solving the problem, using a wide range of approaches.

Rob McEwen of Goldcorp, Inc. described his experiment with issuing an open-source challenge. His company owned what many had thought was a tapped-out gold mine. In-house research had suggested that more gold was present, but no one knew where. Frustrated with the pace of exploration, McEwen issued the Goldcorp Challenge in 2000: Goldcorp placed all of its data online and announced a total of $575,000 in prizes in exchange for knowledge of where the next 6 million ounces of gold would be found. This unleashed not just geologists and mineral experts, but computer programmers, applied mathematics experts, systems engineers, and others. The success of this approach was dramatic. In all, contestants identified 110 possible sites, half of which were unknown to Goldcorp geologists. "Our costs went down 80%, and our production went up 900%," McEwen told conference participants.

Paying Only for Success, Leveraging Multiple Investments

A prize or challenge pays only for success. This fact has powerful effects. In the first place, it places limits on the cost to a sponsoring organization and can distribute the risk of failure to contest participants. Individual contestants make their own decisions on whether it is worth it to them to compete, balancing risk of failure with the possibility of success. In the case of Goldcorp, geologists had already failed to find the gold their tests suggested was present. "We had [already had] two wrong answers," said McEwen. Time was getting tight. There was no longer room to risk more exploration.

Not only does this approach spread the risk around, but it creates a multiplier effect when it comes to investment. One challenge can leverage investment far beyond its dollar amount. Each individual team pours its resources into winning – and this adds up. "For a $10 million prize," said X-Prize Foundation's Diamandis, "teams spent $100 million to try to win it." He went on to say, "If a prize is designed correctly, you will get 10-40 times the investment" beyond what it is worth.

"Our costs went down 80%, and our production went up 900%."

– Rob McEwen, Goldcorp

Jonathan Bays of McKinsey & Company delivers the keynote

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Making It Real: Five Dos and Don'ts

Panelists agreed that prizes and challenges can be powerful tools for leveraging resources and driving change, but there are also some definite dos and don'ts. Many of these apply to any sponsoring organization, but there are also special considerations for government agencies.

- The problem to be solved must be clear and well defined, with clear, measurable, and objective rules. Panelist after panelist hammered this point home. "This is the first step, before the competition," said **Charlie Brown**, formerly executive director of Ashoka Changemakers. "Everybody should be able to tell when someone has won," said Diamandis. And, **Sonal Shah**, director of the Office of Social Innovation and Participation, pointed out that it is critical to get these questions right: "What is the problem we are trying to solve? Will this prize actually take us in that direction?"

- Agencies must make sure authority and budget are in place. Though they are encouraged, there is no controlling cross-agency authority that authorizes prizes and challenges. The Office of Management and Budget has recently issued guidance for agencies that are considering using prizes and challenges as a part of their fulfillment of the Open Government Directive and to achieve other important policy goals. **Melissa Patterson**, the OMB attorney who drafted the guidelines, said that it is important to understand that authority varies from agency to agency. "Talk to your general counsel early and often," said Patterson. U.S. Chief Information officer **Vivek Kundra** said he hoped that would change. "Looking forward, we are looking at how to have that authority across agencies."

- Challenges should be open and transparent. Do not underestimate the effort it will take to remain fair. **Peter Lee**, director of the Transformational Convergence Technology Office at DARPA, described a challenge where the agency hid red weather balloons in various places in the continental U.S. and

A nonmonetary prize that creates recognition can stimulate innovation - as can a contest that promises winning ideas will actually be used.

asked teams to try to find them. Some of the teams tried to hack DARPA's servers, while others spread purposeful disinformation. The antagonistic responses were expected and a part of the design (meant to simulate war fighting conditions) but even so, "ensuring absolute fairness is hard," said Lee. "It took much more time than we expected."

- Prizes don't have to be money. People who enter challenges do not only do so in order to get a financial windfall. Some enter for other reasons. A nonmonetary prize that creates recognition can stimulate innovation -- as can a contest that promises winning ideas will actually be used. For example, the President's SAVE award was a contest open to all federal employees in late 2009. The call was for the best idea to "save taxpayer dollars and make the government perform more effectively and efficiently." The person submitting the winning idea would have the opportunity to present the idea to President Obama face to face, and the idea would be included in the 2011 budget. Indeed, the notes from one breakout session small group read, "prizes have to offer more than $."

- Use the public for the right purpose. There are many stories (some apocryphal) of inappropriate ideas rising to the surface of contests as the result of groups gaming a voting system or for other reasons. Furthermore, voting systems often result in the most creative solutions being dismissed. It is not clear that making final evaluations is the right use of Web 2.0 tools when it comes to such contests. Harvard Business School professor Lakhani said, "The public is good at *generating* ideas. It is not clear they are good at choosing winners."

Challenges and a Strong Affirmation

Participants showed a lot of enthusiasm for exploring prizes, challenges and open grantmaking on the Federal level and beyond. There were also many questions from agency personnel on how best to move forward and what kind of support they might expect. A number of attendees articulated challenges that they expected to face as they brought this work into their own agencies. Key challenges included:

- *Authority:* There is no cross-agency authority for prizes and challenges.
- *Intellectual property:* In the case of new technical solutions, who will own the intellectual property? How will this be delineated?
- *Embracing failure:* Some initiatives may fail. How will we handle this?
- *Promoting change within:* For many offices, using prizes and awards to further policy goals is an uncomfortable idea. How will we drive this change internally?
- *Administration:* How will we ensure we have the capacity to administer this competition?

These and other questions will need to be worked through within each agency. Mindful of this, senior administration officials were unanimous in urging deliberate action and pledging a support framework. **Tom Kalil**, Deputy Director White House Office of Science and Technology Policy, put it this way:

> "I hope everyone who is here from the Federal Departments and Agencies will come away from this with a renewed sense that this is an important tool, that you will go back and talk to 5-10 of your colleagues to get them excited about this, and that if you run into people who say no you can't do this, show them the OMB memo, show them that this is in the President's Innovation Strategy, and **know that you have not just permission to do this, but a strong affirmation** from the Office of Science and Technology Policy, from the National Economic Council, [and] … from the OMB General Counsel's Office . . . who has been an invaluable partner in identifying and addressing some of the legal challenges. . . .

I want you to know that we are really prepared to be your advocate as you come up with great ideas and encounter what I am sure will be one or two challenges that you will have to overcome internally to move these ideas to fruition."

Peter Diamandis, CEO of the X Prize Foundation, delivers the keynote

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– Tom Kalil, White House Office of Science and Technology Policy

About Brad Rourke

Brad Rourke is president of The Mannakee Circle Group, a firm that helps organizations engage better with their publics. He is an associate of the Kettering Foundation and has over a decade of experience working with many of the key organizations in the civic participation field. He blogs regularly about new media, participation, and ethics and is the founder of Rockville Central, a hyperlocal community-based news source that has grown to become the second most-read local blog in Maryland.

About the Case Foundation

The Case Foundation, created by Steve and Jean Case in 1997, invests in people and ideas that can change the world. The Foundation champions initiatives that connect people, increase giving, and catalyze civic action.

About the White House Office of Science and Technology Policy

Congress established the Office of Science and Technology Policy in 1976 with a broad mandate to advise the President and others within the Executive Office of the President on the effects of science and technology on domestic and international affairs. The 1976 Act also authorizes OSTP to lead interagency efforts to develop and implement sound science and technology policies and budgets, and to work with the private sector, state and local governments, the science and higher education communities, and other nations toward this end.

About the White House Domestic Policy Council

The Domestic Policy Council (DPC) coordinates the domestic policy-making process in the White House and offers advice to the President. The DPC also supervises the execution of domestic policy and represents the President's priorities to Congress.

For more information about the gathering, including agenda, speakers and video, please visit:
http://www.casefoundation.org/citizen-centered-solutions

The hardworking staff of the Promoting Innovation conference.