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Change the World, and Win Fabulous Prizes

By [STEVE LOHR](#)

THE Internet is revitalizing an old stalwart in the innovation game: the prize as incentive.

Every few weeks, some big new contest arrives. This month, Overstock.com, the online retailer, announced that it [would sponsor a competition](#) paying \$1 million to the person or team who comes up with new technology that most improves its product recommendations. And Qualcomm and the X Prize Foundation — a group known for its huge prizes for grand challenges, like private space flight — [announced a \\$10 million competition](#) for a smartphone application that could diagnose health problems as accurately as human physicians could.

Last month, the Heritage Provider Network, a medical group in California, supplied details and data [for its \\$3 million prize](#). It will go to the team with the best algorithm for predicting which patients are most likely to be admitted to hospitals in the next year.

Perhaps the most far-reaching effort, however, comes from the federal government. Legislation passed in December, the America Competes Act, gives government agencies far greater freedom to sponsor prize contests with purses of up to \$50 million. Last September, even before the legislation, the Obama administration put up a Web site, [challenge.gov](#), listing government challenges, some with prize money and some without, as part of its goal of tapping innovative ideas from citizens.

The proliferation of prizes, says Josh Lerner, a professor at the Harvard Business School, is part of the larger trend of opening corporations and government to wider networks of people with fresh ideas by using the Internet. Crowdsourcing and open-source software — computer programs developed and debugged by far-flung groups of contributors — are other examples of the “open innovation” approach, he says.

“But while the current popularity of prizes is facilitated by the Internet, the prize model goes way back — long before computers,” Mr. Lerner observes.

The prize model does indeed have a long, rich history. In 1714, Britain offered a prize of £20,000 — nearly \$4.5 million today — to anyone who could invent a way to accurately determine a ship’s longitude. That prompted John Harrison to create the marine chronometer, an invaluable tool of seafaring navigation. In 1795, the French government created a sizable prize for the inventor of a way to preserve food, because provisions for Napoleon’s armies were spoiling in transit. So Nicolas Appert devised a technique for [canning](#) food. In 1919, Raymond

Orteig, a New York hotelier, announced a \$25,000 prize — more than \$300,000 today — for the first person to fly nonstop between New York and Paris. In 1927, Charles Lindbergh picked up that prize, opening the door to transoceanic air travel.

Those contests point to the power of incentive prizes to attract ideas and skills from unlikely sources. Harrison was a watchmaker, not an astronomer or scientist. Appert owned a candy shop in Paris. Lindbergh was not a leading aviator of his day; he was a 25-year-old pilot of mail-delivery planes.

Today's prize sponsors are hoping that their contests can encourage bright outsiders to generate breakthrough ideas. Dr. Richard Merkin, chief executive of the Heritage Provider Network, said he would like to see his \$3 million prize lure experts in Internet software, as well as nanotechnologists and astrophysicists. "We want to bring in brilliant people not necessarily steeped in health care, but steeped in data analysis," Dr. Merkin says.

The contest will run for two years. Once the ability to predict which patients are most at risk for hospital admission is improved, the knowledge can be used to tailor treatment to at-risk patients, he says, often those with chronic conditions. The idea is to help them stay out of hospitals, where care is most costly. Studies estimate that at least \$30 billion is spent in America each year on avoidable hospital admissions.

"If this works, a lot of the money that goes for hospital care could go for other things, like cures," Dr. Merkin says.

Privacy is a challenge in handling large data sets that include personal information, even when names and other identifying details have been stripped off. Netflix ran into that problem after it paid \$1 million in 2009 to a team of computing wizards that most improved its online movie recommendations.

The competition was hailed as a success both for the company and for spurring new techniques of data analysis. But Netflix canceled a planned second prize contest, responding to protests when researchers showed that supposedly anonymous data in the first competition could be used to identify customers. **The advisory board for the Heritage prize includes one of the researchers who made that discovery. That, Dr. Merkin says, should help Heritage keep the patient data anonymous.**

In government, prize advocates are optimistic about the potential payoff in both innovation and efficiency. "You can access a whole universe of innovators, and you only pay for the result, unlike the usual procurement system," says Todd Park, chief technology officer of the [Department of Health and Human Services](#).

Government agencies have run big prize contests in the past. In 2005, the Pentagon paid a \$2 million award to the team whose robotic car won a 132-mile race in the Nevada desert, a feat in the design of driverless vehicles. But such projects have been exceptions.

THE new legislation opens the way for prizes to become a mainstream tool in the government's efforts to encourage innovation. In health care technology, for example, the agency is beginning an "Investing in Innovation" program that will include up to 15 prize contests a year that pay as much as \$100,000. The purpose is to pursue ambitious goals like seamlessly exchanging health information among hospitals, clinics and physicians, or to find imaginative new designs that make the presentation of health data in electric health records easier for doctors and patients to understand and use.

But the health agency, Mr. Park says, will also continue with smaller prizes of a few thousand dollars. Even the smaller amounts, he says, can be effective. Especially in low-budget contests, Mr. Park says, "these innovators are not really competing for the prize money, but for the recognition and future opportunities, like attracting investors."

[Research strongly suggests](#) that [prizes really can](#) stimulate new inventions — and not just help harvest them in fields already ripe for innovation. Yet contests, by definition, are transitory incentives. "Prize bounty hunter" is hardly a career path, and prizes are no substitute for sustained investments in people, education and research.

In the innovation game, the prize model may be becoming a more significant tool, but it's no silver bullet.