In Stockholm, a speed camera lottery encouraged safe driving by entering those who obeyed the speed limit into a lottery pool funded by drivers who had been fined for traffic violations. In a three-day demonstration, traffic speed decreased 22 percent. The speed camera lottery worked because people like money, but more than that, it worked because games can be more satisfying than real life. In a game, the rules are clearly defined, there’s an obvious goal and one’s progress can be measured in definite terms. By learning the rules, honing one’s ability to play the game and not giving up, victory is assured, eventually. Life, conversely, is often confusing and difficult. The goals of life are often unclear, one’s progress can be difficult to measure and the rules always seem to be changing.

Players of the online role-playing game World of Warcraft have collectively spent more than 6 million years playing the game. Gamification was born through the realization that a person will spend thousands of hours playing a computer game to earn a digital representation of a purple sword. By applying elements of behavioral psychology and gaming to business, it was discovered that the same drive to participate found in the game player could be brought out in customers and employees. Research firm Gartner
predicted that “by 2015, 40 percent of Global 1000 organizations will use gamification as the primary mechanism to transform business operations.” Gamification, whether by using something as simple as virtual badges or as complex as an entire game, offers a framework for encouraging desirable behavior.

And gaming principles are being included in different projects both inside and outside government. A mock stock market in the United Kingdom brought new ideas that spread throughout the government’s largest federal agency. Gamified systems are used to motivate people to learn online, exercise and volunteer their time for medical research. Officials in one Florida county government agency are planning a suite of gamified systems that will change their approach to community outreach.

When correctly applied and carefully nurtured, gamified systems can get people interested and participating.

In the 1920s, psychologist B.F. Skinner invented the now renowned operant conditioning chamber, or Skinner Box, to test and affect the behavior of rats. By pressing a bar, a rat got a snack. Then, pressing the bar twice lit a light, which granted a snack. Progressively, the rat was conditioned to press the bar up to 100 times before a snack was dispensed. Though the comparison may be discouraging, Jonathan Wallis, associate professor of psychology and neuroscience at the University of California at Berkeley, says this is basically how gamification works with humans.

Watch Video: USC professor explains what gamification can — and can’t — do for your agency.

Wallis, who also advises startups that use gamification, said one of the things that makes games fun is their shortened feedback loop. The payoff for doing good things in real life is usually delayed at best and, more commonly, nonexistent. Games tell the player what needs to be done and then reward the desired behavior immediately. “Figuring out what a goal is, that’s hard work,” he said. “You have to think about it, there’s creative input and back and forth. You can’t gamify that kind of thing. Instead, gamification works for elements of your life that are very concrete and well defined.”

For something like losing weight, a subject Wallis researches, gamification works well because both the goal and the route to success are obvious. One of the tricks games use, he said, is hiding how much work something is. For instance, telling someone they’ll need to run 120 miles to prepare for a marathon might make them quit before they even start training. Games break the work into smaller increments and provide feedback or reward along the way.

Gamification can achieve great results — the hard part is designing the game correctly.

If gamification can lead to innovation in U.K. government — and it did — then it can work almost anywhere, said James Gardner, general manager of Spigit and former chief technology officer of the U.K.’s Department for Work and Pensions. “You do not
expect a great deal of innovation in the British Civil Service,” Gardner said. “There are probably people in that organization who have not discovered Britain no longer has an empire.”

The Work and Pensions Department is the U.K.’s largest government agency, with more than 135,000 employees. But Gardner began small with his idea, which he called Idea Street. “We deployed it on a limited basis in central London, but it spread like wildfire throughout the whole department,” he said. And it’s still in use today, nearly four years after it was introduced in late 2009.

Idea Street was created as a market where employees could suggest ideas for changes in the workplace, big and small, and others could trade stock in those ideas. On top of that was a system of game dynamics that encouraged participation. The agency wasn’t allowed to pay employees extra for winning or participating in the idea market, but it didn’t need to, Gardner said.

Employees discovered that they liked the game, having an outlet for their ideas, and most of all, the recognition that came with winning. A public leaderboard showed who was doing well on Idea Street, giving the winners de facto status in the organization. “I hadn’t realized before joining the Civil Service how extremely important status is,” Gardner said. “It turned out to be a most remarkable driver of outcomes.”

Department officials weren’t sure what to expect from the program, Gardner said, but after a couple of years they realized the suggestions and ideas coming from Idea Street were mostly small adjustments to how things worked. “These things, when they started to add up, were turning into quite a lot of money,” he said. “Small changes have a disproportionate impact when you do a thousand of them.”

Like recognition, some of the most effective rewards are free and more valuable than money, said Rajat Paharia, founder of Bunchball, a company that provides gamification software for businesses. For instance, members of a Black Sabbath fan club, if offered a choice between an exclusive sneak preview of an upcoming album and $100, would almost never take the cash. “They want to be the ones that know something no one else knows, get behind the velvet rope, be able to share it with the world and be a hero,” he said. “In that case, exclusive access is worth more than dollars.”

There are a few key drivers for a gamified system and to be successful, someone needs to identify what motivates people in an organization and build a system around that motivation.

“They might not care about reputation or status, and they might care a lot about dollar value stuff — or it might be the other way around,” he said. “Whether consciously or unconsciously, whenever we engage in any kind of system, we ask, ‘What’s in it for me?’ And if there’s not a good answer to that question, we won’t engage, or not for long.”

Educational website Khan Academy began in 2006 simply as an index of educational videos, but today it has grown to a gamified community of more than 10 million
students. High-quality content is important for any project, which Khan Academy has, but the website began to draw serious traffic and retain users once features like badges, achievements and social media were integrated into the design.

Zamzee, a website and device that encourages physical activity in children and families, has evidence to suggest that gamification can help boost exercise. A six-month study and 12 clinical trials showed that Zamzee's gamified system increased physical activity among its users by 59 percent.

And a computer game and website called Fold.it uses the data collected by game clients on users' computers to help with disease research. The game, in which participants fold proteins, helps with research connected to HIV/AIDS, cancer and Alzheimer's disease. Fold.it creators are trying to see if its tens of thousands of users can solve certain puzzles better than computers can.

The three core assets of gamification are “feedback, friends and fun,” Zichermann said. “Fun is a little more difficult in the government setting, but nonetheless something to strive for.” And the four things that drive participation are “status, access, power and stuff,” he said. Getting all these features balanced correctly is a matter of careful calculation that depends on the organization.

In fact, the wrong type of engagement could produce a negative result. “[311] apps without gamification actually make the city government’s relationship with the citizens worse, because they provide an instant feedback tool without an instant solution loop,” Zichermann said. The positive feedback needs to come from the app, not from the pothole getting fixed, he said, because by the time the pothole is fixed, the person who reported it is no longer as strongly connected to the event.

Something as simple as a virtual badge or tokens is enough to give people an immediate incentive to continue participating, he said, but you can’t leave users hanging for weeks and expect continued participation. Users want to see continuous progress along the way so they can feel emotionally secure about the entire endeavor.

Internally, gamification can offer revitalization in government, Zichermann said. “People can’t be expected to do the same thing every day, day-in day-out for 20 years with the same level of enthusiasm,” he said. “Many people who go into government start off with a tremendous amount of enthusiasm, but the lethargy of government can become demotivating. Gamification is very good at bringing those concepts of motivation and engagement back to people who may have lost connection with their job. And the corollary of that is that if government agencies want to attract a young, change-driven generation, mainly the millennials and Gen Y, they’re going to need to gamify in order to make and keep the work interesting for those folks.”
Gamification originally was recognized as a great way to engage, said Gartner Research Director Elise Olding, but it’s evolving into more than that. Gamification is not something that can be installed and forgotten — it requires careful curation, but once that’s realized, the outcome can be transformative.

“The tough part is looking at the work government is doing, thinking about how that work could be done better, and understanding the behaviors that are currently supported by the way metrics are happening or the culture,” Olding said. “Then using game mechanics in a very specific way to encourage behavior change and also understanding that you have to continue to iterate once you get behaviors up to a point or you’re going to get game fatigue. Gamification connects employees to business outcomes, but you’re going to have to redesign that work.”