Using Game-Based Approaches to Engage Citizens and Deliver Public Services

By Nicole Lazzaro

Introduction

The Obama administration has challenged federal agencies to meaningfully engage the public to provide ideas, insights, and comments on new policies and existing services to make them more citizen-centric. The administration's Open Government Directive asserts: "Public engagement enhances the Government's effectiveness and improves the quality of its decisions."

Many agencies, however, are finding that few citizens are participating in their initiatives. In its second term, could the Obama administration do more to incentivize greater participation and collaboration by citizens? The answer is yes. One new approach could be the increased use of game-inspired thinking in the design of public services. If crafted appropriately, applying the lessons from the thinking used in designing games could have the potential to transform how government communicates, provides information, and delivers public services. While some government objectives can be reached with full-on games, using game thinking as a pattern when designing interaction has the potential to increase engagement in actions and public discussion. Games have been called the new medium of the 21st century.

Although games can be seen as a distraction and waste of time, inspiration from game design thinking provides an opportunity to improve the way public services are designed, approved, offered, and used. "Gamification" of systems using point systems and rewards, such as badges, can increase participation. Game thinking applied at each citizen touch point is an opportunity to increase engagement and adds motivation to participate. Game approaches can involve citizens in new ways, building understanding of and support for programs and thus reducing time and resources needed for implementation at later stages.

There is an opportunity to use game thinking to playsource human engagement. Games already teach the political process, such as the iCivics' game Win the White House. A generation that grew up playing digital games is now coming

of age, ready to engage in the political process. Raised in an ocean of interactive media, games, and advertisements, this generation expects more than downloadable PDF brochures and passive websites. They expect more participation and influence in information delivered via technology. Game-inspired information technology can be a powerful organizer of human action and engagement in the face of enormous national challenges, such as AIDS, obesity, education, and climate change. For additional subject areas that game designers are already addressing, visit the Games for Change website. Government can now deliver game-inspired public services on mobile devices like smartphones, and on desktop and laptop computers.

How Could Gaming Design Thinking Be Used to Solve Public Challenges?

Games are self-motivating systems and for the past 30 years game designers have evolved interactive techniques to generate emotion, support performance, encourage

problem-solving, develop systems thinking, change behavior, and increase engagement. The power of games to engage users and hold their attention comes from specific designs created by game makers that allow players to make choices while playing. As veteran game designer Sid Meier says, "Games are a series of interesting choices." Therefore, the focus of applying game thinking should be to borrow game design techniques in order to make citizen choices more interesting and engaging. Game designers craft emotions, situations, choices, and feedback that create the opportunity to change the way that players think, feel, and behave.

Twenty years of research by one game design firm, XEODesign, found that games create their legendary engagement in four ways. People play for:

- Hard fun (challenge)
- Easy fun (novelty)
- People fun (friendship)
- Serious fun (meaning)

We call these the Four Keys to Fun and they are the secret behind how a player's favorite moments in games create engagement. Offering a variety of interactive styles lets players experience a wider variety of emotions and stay engaged longer. Gaming uses many engagement techniques to make multiple types of activities fun. Therefore game-inspired services delivered on various platforms offer the opportunity to increase public engagement and to redesign public services.

Using Gaming Technologies to Redesign Public Services

Game-inspired thinking has the potential to redesign the delivery of public services. In the way that Craigslist replaced newspaper want ads or *Wikipedia* replaced the *Encyclopedia Britannica*, it's possible that a social game played by millions could deliver one or more government services. For example, Zooniverse harnesses the power of "citizen science" to systematically collect data and analysis by a network of hundreds of thousands of volunteers. It employs quests, puzzles, and research activities to create a resource for inquiry-based education tools. In the future, engaging social or simulation games could deliver a variety of public services, ranging from providing health information and emotional support to planting trees in urban areas. Games have the potential to deliver selected public services at a higher quality and at a lower price. In some cases, games can provide services that government has historically provided by traditional delivery approaches. Game thinking can offer interactions and feedback to participants, increasing

engagement and making the process more rewarding. In the future, information services, such as career training and job placement, could be gamified in a social way, as in job interview preparation games.

Games in Action: Inspiring Healthy Lifestyles

Information on nutrition can improve health. Game-like interaction with health information has the potential to inspire changes in diet and exercise that could combat the rise of obesity in children and diabetes in adults, now at epidemic levels. Government can provide important information and

Challenge.gov: Apps for Healthy Kids Challenge
(Sponsored by the Department of Agriculture)

Description of Competition: The Apps for Healthy Kids competition is a part of First Lady Michelle Obama's Let's Move! campaign to end childhood obesity within a generation. Apps for Healthy Kids challenges software developers, game designers, students, and other innovators to develop fun and engaging software tools and games that drive children, especially "tweens" (ages 9–12)—directly or through their parents—to eat better and be more physically active.

Winners:
- **Pick Chow!,** a website that allows children to create meals by dragging and dropping foods onto their virtual plate with a meter showing the nutritional values as well as a meal rating in a fun and easy way.

- **Trainer,** a game that gives the player the responsibility of caring for creatures that all have dietary and fitness needs.

- **Work It Off,** a mobile application for Android phones, teaches children the correlation between the calories they eat and the calories they burn.

- **Tony's Plate Calculator,** an online tool that can help you calculate the nutritional values for a single item, an entire recipe, or a full day's worth of food.

- **Food Buster,** a game that asks you to carefully stack food items that don't break our scale. For each round you'll try to find foods with the fewest calories, least added sugar, and least amount of saturated fat. The fewer the calories, the more points you'll get.

motivation in the context of a game. Information delivery is just the first step in improving health. A second step is behavior change. Nutrition games can help people take that information and reward players for turning the information into action.

In the best of these types of games, players must master the content and change their behavior to succeed at playing the game. Games can inspire curiosity to learn more and experiment with new, healthier choices without sounding preachy. In addition to raising awareness on how to eat better, games can make it fun to take action and change behavior.

Games can provide information on nutrition. Games can enhance each stage of the nutrition cycle, from planning menus to shopping for food and putting it on the table. For example, future interactive information services, such as the Choose My Plate eating guides to better nutrition, can tap into the contents of one's refrigerator or grocery bill. Game-like design can inspire and challenge a player to make new choices and track their progress, find social support, and make their accomplishments through game play more meaningful, last longer, and connect with real-world change.

Games can spark curiosity about nutrition choices. In addition to challenging players to achieve specific health goals, games can also inspire curiosity by encouraging exploration with opportunities to combine foods to reduce fat and calories and increase nutritional value. Players can enter their favorite recipes and get real-time feedback on the nutrition profile of their choices. Games can challenge players to find the secret ingredient or add an extra nutritional boost to a meal. With additional analysis, games could suggest ways to complement a protein or reduce fats and sugars. The environmental impact or the sustainability index of food offer other ways for players to win the nutrition game. For citizens participating in the Supplemental Nutrition Assistance Program and the Women, Infants, and Children (WIC) nutrition program, feedback could be targeted toward the nutritional goals behind the program. In addition, more information about both price and nutrition could make benefits stretch further.

Interactive simulation games can now show the effect of nutrition and other health choices over time. Games can track changes in exercise or eating habits and offer relaxation techniques. To increase engagement, the quality-of-life impacts
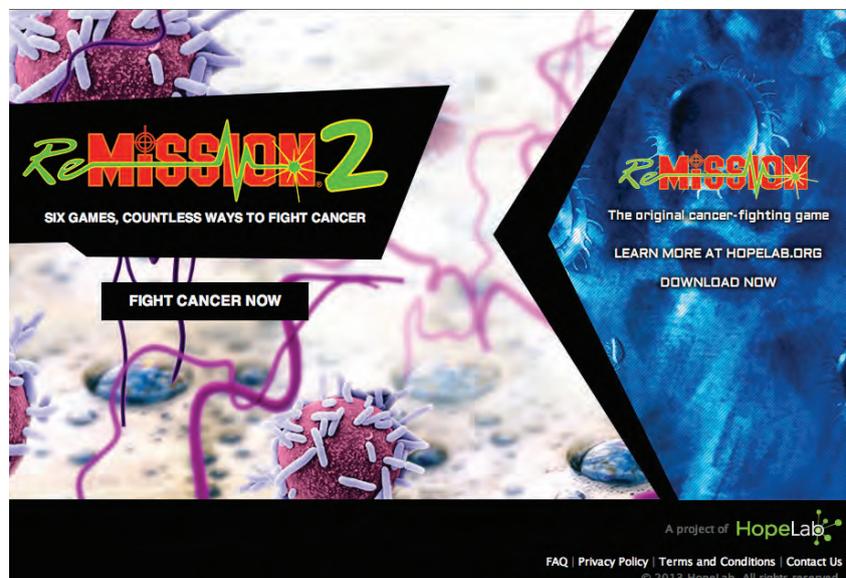
of health care and preventative care decisions can be visualized with humor and style. Fun 3D fly-throughs and role playing can also increase comprehension and compliance with medication such as with the cancer-fighting educational game called Remission by Hope Labs. This game is a first-person shooter where players learn about their cancer medications by flying through a body on cancer-fighting missions. To increase activity along the lines of First Lady Michelle Obama's Let's Move!, games such as Zamee, also by Hope Labs, have been shown to increase kids' physical activity by 59 percent.

Social games can connect communities of people with similar health goals. Social games played on social networks, such as Facebook or Twitter, can also connect like-minded individuals to commit to change their behavior or lifestyles by stopping smoking or losing weight, for example. The development of interactive preventative services provided electronically can increase the effectiveness of brochures or websites of best practices in promoting healthy lifestyles.

Games can provide real-time feedback on healthy behaviors. Games have been proven to provide long-term outcomes. Games can encourage healthy behaviors with real-time feedback, competition, and cooperative mechanics to make exercise more fun. They can show long-term outcomes and make normally invisible processes easy to see. In fact, games that target exercise already exist. To increase interest in exercise, a watch with progress meters and graphs such as Nike+

FuelBand helps players reach their goals. In addition to being reminded of an individual's commitment to exercise every time a player checks the time, the watch makes it easy to record stats and graph progress toward fitness goals.

The context established by a game, whether a zombie chase or caring for and feeding veggies to a virtual pet dragon, increases excitement; the real-time progress offers players a hope of achieving accessible stages of success. The surrounding fantasy and enhanced encouragement for these nutrition and health games change the emotion profile of the activity, making it more engaging, more memorable, and encouraging. Games can change behavior by changing the emotion profile of what the player wants to achieve.

Conclusion

Applying the thinking used to design games in more serious ways can transform how government communicates, provides information, and delivers public services. Game design can inspire new types of interactions to provide information, inspire action, increase motivation and feedback on long-term progress, and reduce the time needed to implement those processes. Play-sourcing games can inform, change behavior, and even create real-world change. Games do this in three ways:

- **By informing players** with interactive demonstrations of concepts and themes rather than just requiring listening or reading

- **By encouraging practice and exploration of outcomes** unfeasible in the real world

- **By informing, motivating, challenging, and rewarding new behaviors**

At their best, games break down complex relationships and processes into easy-to-achieve steps. They can make practice fun. Games can organize human behavior and shape patterns to transform communities. And finally, games raise awareness more than a website or brochure does, and
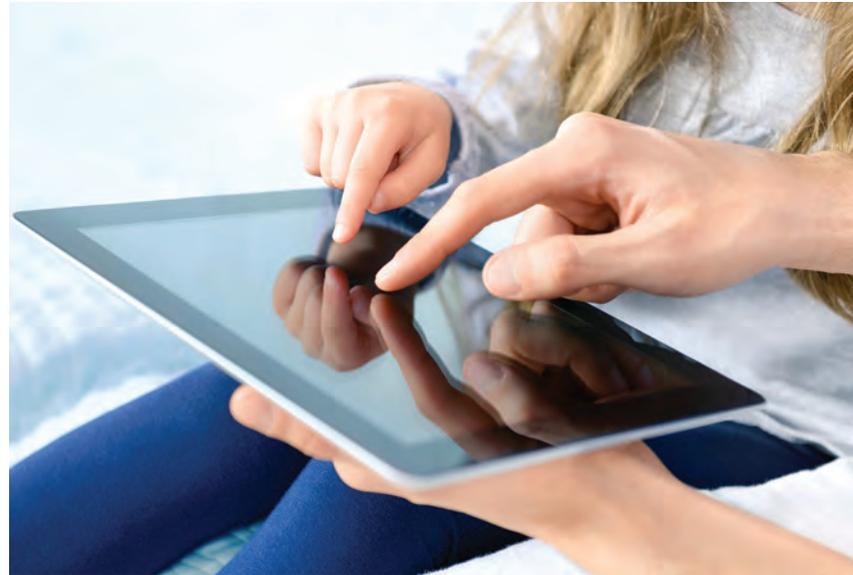
because they are about choice, games can inspire and motivate the actions that we need our nation's citizens to take.

Nicole Lazzaro is a world-renowned game researcher, designer, and speaker who makes games more fun. The president of XEODesign, she developed the Four Keys to Fun, a model used by game developers worldwide. She has advised the White House and the U.S. State Department on the use of games.

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Excerpted from **Fast Government—Accelerating Service Quality While Reducing Cost and Time.** *See page 35 for more information on this special report made available from the Center.*