SUMMARY

As today’s policy challenges become more complex, it has become clear that American media — online news, television, radio, newspapers, and magazines — are not up to the task of explaining the problems underlying them or providing citizens with all the information they need to engage in public conversations about them. Democracy cannot function properly without those conversations. But one new medium - videogames — may well fill the gap. By their very nature, videogames can engage players in ways that enable players to make their way through the intricacies of policy problems. As players begin to understand them in all their complexity, games may well help their governments forge solutions.

About 40 years ago, a number of political and social scientists began to discuss the idea of wicked or messy problems—problems that lacked well-defined problem statements, right or wrong answers, or simple linear solutions.1 Fast forward a few decades, and we are awash in these problems—from reversing climate change, to providing affordable health care, to addressing threats from nonstate actors. A distinguished group of public servants has endorsed Leon Fuerth’s effort to make government better at addressing wicked problems—deft at anticipating and managing events and crises rather than just reacting to them. However, what we face today is more than a weakness in the tools and technologies of governance. We also face a mismatch between the complexity of these policy challenges and the utter inadequacy of our media to communicate complexity, which deprives our citizens of the ability to engage in the conversations we urgently need around national and international issues.

In the 40 years since wicked problems were first identified, one medium has emerged as the most...
effective method of enabling citizens to learn about and engage with such problems. It is the medium that emerged at roughly the same time as the messy problem—paradoxically in a package that could hardly have looked neater.

**IT’S THE VIDEO GAME.**

The strength of the video game at communicating and addressing complex policy issues is in its very bones. As Katie Salen and Eric Zimmerman explain in their book *Rules of Play*, inside a game—what constitutes it—is a system: a “group of interacting, interrelated, or interdependent elements that come together to create a complex whole.” The pattern or experience that the system as a whole creates is different from that created by those individual parts. The player’s input also helps determine that experience. Consider chess. There are rules for how each piece is initially positioned and can move and capture other pieces. But the pieces’ strategic relationships to each other—how pieces can actually force checkmate in a given game—are actually determined by those pieces’ spatial relationships on the chessboard’s grid and by the player’s ability to spot and exploit opportunities to win.

In complex systems of this sort, the outcome is said to be “emergent,” which means that the player’s experience of the game is context dependent—shaped not only by what the player does but also by what is happening in the other entwined parts of the game over time. A game is the “same but different”—identical in structure each time it is played but producing a different outcome according to what the player does and how the rules play out in each specific instance of play.

The structure and complexity of games make them effective tools for investigating wicked problems and seeing the ramifications and trade-offs dictated by policies designed to address them. Like games, policies also can be seen as systems—structures created by the interrelated rules, regulations, and other mechanisms by which policymakers try to close a gap between reality and a goal. A policy’s interrelated structures create an extended system that determines or shapes the user’s experience, which differs depending on choices and context. Just as games’ outcomes can be emergent, policies can have unintended consequences that a game version of a policy can reveal.

The structural similarities between games and policies make games particularly good at providing a direct, concrete, and personalized experience of what a policy’s ramifications might be; how those consequences might differ from user to user; and how making one trade-off produces an outcome different from that of another trade-off. That likeness is also why, after searching in vain for enough game designers in the 1990s, Alan Gershenfeld, who was then head of Activision, hired lawyers to work on games. That’s right: because lawyers are trained to structure the system of laws and regulations, to consider those rules from every angle, and to look 10 steps down the path to see the effects created by such rules, Gershenfeld hired lawyers to design commercial video games. The gambit worked; the lawyers understood gameplay. Activision Blizzard rose from a company barely out of bankruptcy to become the largest video game company in the world, with $4.8 billion in revenues in 2011.

Games produce a whole set of additional benefits. First, games such as the Wilson Center’s *Budget Hero* (http://www.wilsoncenter.org/budget-hero) create what Yale University computer scientist David Gelernter calls “topsight”—an understanding of the big picture. This “view with context” is almost completely absent from the politically parsed soundbites of our politicians and journalists. Video games are very good at making complexity accessible by providing a platform that combines the big picture
A policy’s interrelated structures create an extended system that determines or shapes the user’s experience, which differs depending on choices and context. Just as games’ outcomes can be emergent, policies can have unintended consequences that a game version of a policy can reveal.

The brain’s tendency to filter is a costly one, as it blinds individuals to the facts, experiences, relationships, and insights of others. Games can circumvent the brain’s tendency to filter out the unfamiliar, which means that they can radically increase players’ knowledge and empathy. How do they do it? Games permit players to step out of their own shoes and inhabit the role of another. Well-designed games oblige the player to set down stakes in that other role, behaving like and seeing the world through the eyes of that other.

In the past 40 years, games have succeeded television as the technology-based mass medium that changes how we think about ourselves and the world. In 2011, American consumers spent $24.75 billion on video games, hardware, and accessories. Sales of video game software generated $16.6 bil-

Figure 2. Pong.
Video games are a promising route to reengaging these millennials—the 46 million 18- to 29-year-olds who constitute the largest generation in the nation’s history.
More recently, the Obama Administration’s Office of Science and Technology Policy has begun organizing federal agencies to use video games both to train their own staff members and to engage the public in their most pressing policy issues. As the office has acknowledged, though, this is just a beginning. The Serious Games movement needs to continue refining its vision and strategy, and it must secure the public and private financing that will make this work possible.

There is a very clear precedent. In 1967, the federal government awoke to the power of another medium, television, to advance and disseminate public policy. President Lyndon B. Johnson established the Corporation for Public Broadcasting, explaining that “we have only begun to grasp the great promise of the medium.” As a new venue for change, it was reaching only “a fraction of its potential audience—and a fraction of its potential worth.” The new medium of games, which is more interactive than television, presents yet greater opportunities for educating and engaging both the government and the public in the great policy issues of our time.

**ENDNOTES**

1. For instance, such researchers included Horst Rittel and Melvin Webber at the University of California, Berkeley, and Russell Ackoff at the University of Pennsylvania.
3. Ibid.

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