I'm not a disruptor. I'm a regulator. But—and you probably saw that but coming—I think it's time for some disruptive ideas about the regulatory process. Today I want to share one with you. It's what I call government in the sandbox, or for short, sandbox thinking.

Sandbox Thinking is also the title of my essay in the *Democracy Journal* this month. So let me thank Editor Michael Tomasky for inviting me to offer my thoughts in your pages. Thank you also for the honor of kicking off this symposium and joining the accomplished group of thinkers you have brought here today.

I think we need some sandbox thinking in Washington. Here's why: If you look you will find no single sign welcoming us to the digital age. Instead, the evidence is all around. Because the ones and zeroes that are the vocabulary of contemporary computing have become the common language of information worldwide. Every one of us depends on this steady stream of digital data each day, in every aspect of our civic and commercial lives.

To access all of this information, we are dependent—like never before—on communications. We know this intuitively. Everyone here has a mobile device in their palm, pocket, or purse. And if you don't the odds are good that you are cursing yourself for having left it on your kitchen counter or in the car. That's because we now expect that text, pictures, video—all manner of media—are available to us wherever we go.

But this is bigger than us. Because our economy now depends on a potent mix of mobility, increased broadband capacity, and the decreased cost of cloud computing sending us information anytime and anywhere. But we are just getting started. Because around the bend lies the Internet of Things, where billions of machines with sensors seamlessly communicate with one another, turning today's steady stream of data into a torrential flow.

While this new digital landscape is exciting, it can pose real challenges for oversight. That's because our regulatory frameworks often have their origin in laws that predate the Internet.

In a presidential debate six years ago, then-candidate Barack Obama alluded to this problem. He suggested that "we still have an archaic, twentieth-century regulatory system." He was speaking just about financial markets. But his pronouncement has broader application. I know—because I am a regulator. At the Federal Communications Commission (FCC), I have the privilege of having a front-row seat at the digital revolution. Every day, I get to see how Internet-based connectivity is remaking our world. Every day, I get to wrestle with how to apply old laws to a digital communications landscape that is changing faster than ever before.

Let's be honest: This is not easy. The traditional regulatory process can be cumbersome. It can be risk averse and hostile to new ideas. It is rarely as nimble as the digital economy itself. But we need to fix this, and I think we can—if we embrace the idea of government in the sandbox.

Software developers often code "sandboxes" into their programs. A sandbox allows others access to a portion of the program without harming the host platform. It provides an opportunity to experiment within the program, minimizing risk before introducing ideas on a broader scale. Entrepreneurs use sandboxes to test new ideas, assess consumer response, and study budding markets.

The technology industry has been extending the idea of the sandbox to all sorts of developments. It means that innovators no longer have to perfect new concepts in obscurity only to bet the farm on launches of large, yet unproven, ideas. Instead, they can set up small experiments to tinker with their projects and expose them to real-world conditions. Think of it like the scientific method: develop an idea, test it, and examine the new result. If what develops is promising, find a way to build it on a larger scale.

Sandbox thinking is popular among start-ups in Silicon Valley. But why not put it to work in Washington? After all, testing big ideas in a small way is a good way to understand the consequences of important policy choices before unleashing them in the world at large.

To understand the power of government in the sandbox, let me describe the typical path of a regulatory proposal in Washington.

It starts with an idea—a good idea—that develops deep within a large federal agency. It sees the light of day through the rulemaking process, which gets started with publication of the proposal in the *Federal Register*. The process is open to all, though the text is often dense with terminology that only a lawyer would love. But stakeholders wade through the jargon and evaluate the proposal. They submit comments. In turn, agency experts toil over these comments. They refine their thinking with a flurry of meetings, a series of summits and panels, and the occasional blue-ribbon commission. Then, without the benefit of testing in the real world, the government unveils a finished product, crosses its fingers, holds its breath, and hopes everything turns out for the best.

This is not ideal. There is too little opportunity for iterative learning. And the penalty for failure is real—from protracted litigation over authority to corrosive public cynicism about the ability of government to innovate and implement new ideas. That's bad. But it gets worse, because with technologies changing so fast and software consuming so many industries, a slow, ponderous-rulemaking process is not a visionary way to plan for the future.

So what if instead of relying on the big reveal, we set up small-scale policy experiments? What if we examined the effects of new rules before unleashing them all at once? Could efforts in Washington improve if we made more space for policy sandboxes? I think the answer is yes.

Even better, I think where I work is a terrific place to start. Because there are complex questions coming in communications. We face big choices about how to zone our airwaves for a world that has gone wireless, requiring us to make good neighbors out of broadcasting and broadband. We face big choices with the migration of our networks to IP-based services. And we face big choices about how to provide spectrum inputs for mobile technologies that are multiplying—exponentially fast.

Weighty issues like these can stop Washington in its tracks. Risk aversion, fear of the future, worry about legal and legislative response—all of it can combine to make taking action hard. It makes kicking the can down the road the easy. It makes caution the conventional wisdom. But if we want investment in the digital economy, industries and innovators need answers. And if we want consumers to trust the digital economy and benefit from its bounty, we need to do a lot better than just leave outdated federal, state, and local regulatory regimes in place.

So here's the good news—and a point of pride. In small but meaningful ways we are putting sandbox thinking to work at the FCC. Because every one of the issues in communications that I mentioned a moment ago is the subject of a sandbox at the agency where I work . We tested broadcast channel-sharing, not on paper, but on towers serving two television stations in Los Angeles. The insights we gained were real—and are going to help inform the television industry as it plans for the future in communities across the country. We have towns in Alabama and Florida that are our test cases for migration to all IP-networks. What we learn we will export back to Washington and eventually around the country. And we have created an experimental licensing process to help researchers and developers tinker with our airwaves—a process that has already led to systems to support rocket launches, patient-monitoring equipment, and robotic technology for the armed forces.

I think this sandbox thinking is yielding dividends—at the FCC and in the communications sector. But we need to expand it. Because the flow of digital data over bigger bandwidth combined with the power of cloud computing is bringing us a wave of software systems that are going to disrupt many more sectors of our economy with analog-era regulatory regimes.

So if we need our regulatory state to be more agile and more innovative, why not take a page from technology itself? I think we need more government in the sandbox. Because by starting small, we can embrace new digital ideas in a big way.