ANEESH CHOPRA

Thank you so much, Steve, for those very kind opening remarks. I'm Aneesh Chopra, the President's Chief Technology Officer, and Todd and I are going to share with you a little bit about where we are in this domain, because the conversation you all had when I walked in the room very much spoke to the notion of the theory of change, and we see the theory of change from the President's perspective, very much was built on the foundation of openness, and so I want to spend a few minutes about that and to put these suggestions in context as you think about your work for the conference. Well, a little bit of background. My first homework assignment was issued before I had the chance to show up. The President, on his very first full day in office, actually, directed a memorandum to the Office of the Chief Technology Officer, calling for recommendations on how we can make the Government more transparent, more participatory, more collaborative. We spent the latter part of 2009 taking the President's vision and translating that into action so that our Federal agencies could begin the work of liberating data, fostering innovation through the collaboration principles the President outlined, hearing more from the American people on what we can do to improve our performance in a number of key areas, and I would like to highlight for you just a few key insights that had emerged from that effort, and align that with the suggestions that Steve just outlined a moment or two ago. We have been very much at the business of releasing data, and doing so not because we had a particular mission objective

in mind, but doing so because it was the right thing to do. The President basically said -- and Todd can illuminate in HHS's particular vantage point, with all the investments we've made to capture information, at the least it should be made available to the American people. And because we're the tech guys, we are finding ways to make that information available in machinereadable format so that the true value of the information won't reside in the Government's sort of report, if you will, but rather the value-add that is built on top. I want to highlight three of these examples of how this information is flowing and what's happening because of the President's commitment, and then perhaps a word or two about recommendations or suggestions on the session at hand. The first is the notion that information in its rawest form may not be that accessible to you and me or to our friends and neighbors, but it is now fuel for a whole new industry for information intermediaries. The principle here was that companies have now emerged that are consuming raw data from the Federal Government that perhaps when it's original software design had not anticipated a public release, but we're putting it out there. To make it more relevant, my favorite example -- and Todd's probably going to cover this -we had Google as a commitment they made for just engaging in health data, took flat files from Health and Human Services on all of the quality and customer service indicators on hospital quality, that maybe you would have visited a website, hospital compared on HHS.gov, maybe most of you, perhaps like the rest of America, hadn't known about the site. Google consumed the

data, and because they have application programming interfaces, made it really easy. So a physician spoke at this event and said, In 30 minutes, he wrote a cute little app; where's the best place in America to have chest pain? And he was able to do that because he built that on top of the API. Second. We're finding the introduction of new products and services that are powered by this raw data. As Todd and I were in South by Southwest last weekend, and Vinod Khosla, the entrepreneur, spoke of a new investment he's made in a firm called WeatherBill that's creating a whole new product of crop insurance to protect against climate change risk. And the fuel that has built his product, or the firm he's invested in, was the National Weather Service, which has open and IP-restriction-free data to all the information, and Todd will say a little bit more about that philosophy. So companies we'd never imagined are building forprofit valuable services because we're releasing information in machinereadable format. And then the third trend that we're finding is it's actually increasing -- and this maybe is where the alignment hits with our social investment work -- we're opening up the Government's own mission objective systems to allow third-party application development. And this is really important for those that are interested in social performance improvement, because now, when the President outlines a set of key indicators, like, by the year 2020 we should have the highest proportion of college graduates in the world, to the person who said, What's my measure of success. Well, we've fostered this whole secondary market of innovative projects and services to get

after this. A little anecdote on this, if I may. The Federal Government did have a program called the Invested Innovation Fund for education, \$650 million, which is not an insignificant sum, but nowhere near what we need to kind of transform the nation's educational system. Because of open data, we decided to make every application public, up to the summary level, so that all 1700 of the applications that came in for the grant program you could download, right now, data.ed.gov. Have your fun at it. Look in your neighborhood. See what ideas came out of it. Every state in the country had at least one application. Second. What happened was, we had required a 20% match. And so there was this -- I would call it unorganized but passionate and successful philanthropic community, that was keen to find ideas, in dealflow, if you will, so that they could provide access. So with like three weeks' notice, about 30 or 40 philanthropies came together and built basically an open platform. So we put a button on our application system. If you're applying to the Invested Innovation Fund, click here if you want to upload your application to the -what was called the Foundation Registry Portal, where all these foundations came together. And literally every applicant that needed to get a match, within 30 days of us telling them provisionally, you've been rewarded, now go get your match, all of them found their match because they were able to connect to this portal. Forty percent of every nickel raised in the match, over \$55 million, came within that 30-day window because they went through this platform. And oh, by the way, one of the biggest partners in this was the J.P. Morgan

Donor-Advised Platform, which is individual investors who wanted a choice to look at projects and services. Now, I don't know how you'd measure it, but to me that's amazing, that here you have clear mission objective -- achieving the President's objectives on education -- an open platform to engage, and now philanthropy participating in new and creative ways to step up and support the cause. Final observation, and that is, the implications of all of this for you guys. A lot of the messages that Steve referenced earlier were these sort of either-or phenomenon. Is it government regulatory? Is it voluntary only? Mandatory, not so much. We kind of reject that thesis, because in our world, this is all about fostering innovation ecosystems, and that is what's happening on the ground. Principle number one. We understand the power of data, so this notion of what's aggregated at the company level, what's not, all the various agencies -- the President's already stepped up and said by executive order, about a month and a half ago, directing once again me and my colleague the Chief Information Officer, for data standards that would allow us to invite the public to make better sense of all the toxic release data here, other data from OSHA there, so that we would have the ability to cross-cut. So we think, technologically, we can build the foundation for interoperability, and we're all over that, that challenge. Second, this notion that we're going to solve these big problems with a government program, with fully Federally funded initiatives, is clearly not the lay of the land today. So by design, we are now going forward, building these principles of extension into the agency's

programs. I served on the standards committee to look at how our health insurance exchanges will be built to enroll the forty-plus million Americans between Medicaid and the insurance exchanges in the private sector. We specifically included provisions that would allow for third party app development, so that a social entrepreneur in Lynchburg, Virginia, who wants to build an amazing app to get uninsured folks in that community, has technical standards that would allow them to plug in. Now, of course the states have to adopt them, and I can't say that's all going to happen, but that's our spirit. Final observation. Final observation. We are absolutely committed to the President's notion of breakthroughs. In the strategy for American innovation, the President has said it explicitly clearly in terms of our goals going forward. Yes, the Government will invest in research and development. Yes, we will work to foster market conditions that spur economic growth through entrepreneurship and innovation. But, at the top of the President's strategy, Whitehouse.gov/innovation, he calls for [laughter]. You've got to read about this stuff. It's on the news. You've got to look at what we can do to catalyze breakthroughs. The President calls this an all-hands-on-deck approach. We need an all-hands-on-deck approach to deliver the breakthroughs we need in energy, health, education, advanced manufacturing and a number of other key areas where the President has said, We will have to get there on the backs of this continuum, for profit opportunities, in fact, creating a real business model in terms of making people healthy and getting

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your kids educated and so forth -- all the way through the opportunities for philanthropy to engage. And while we work to foster these ecosystems for breakthroughs, our job is to make sure that we've got the technical foundation that makes us frictionless, so you can participate with very little effort. That's our spirit, and that's our riff. Let me hand it over to Todd Park who will tell you exactly how we're doing this at one of our Federal agencies, HHS. Give it up for Todd Park. [Applause]