



Stanford eCorner

Make Government Work Better for All [Entire Talk]

Jennifer Pahlka, *Code for America*

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Jennifer Pahlka, founder and executive director of Code for America, explains how governments, from the federal level to the local, need individuals with the skills to harness technology and design principles to make the everyday user's experience simpler and more elegant. Formerly the U.S. Deputy Chief Technology Officer at the White House, Pahlka also discusses the hunger within government for "creative hacks" that improve their platforms.



Transcript

Thank you so much and thanks for everyone coming today. It's a nice big group and it's an honor to be asked to speak to an institution that has such an amazing reputation, I think, for technical excellence and also for an entrepreneurial spirit especially on a topic that isn't always associated with those two things. But I hope today to talk to you a little bit about why it should be and certainly can be. I did want to start with a slightly unconventional question of all of you and bear with me here. Does everybody in this room have health insurance? Can you raise your hand if you have health insurance and if I am embarrassing you, I apologize. So most people here get health insurance. So sort of what I expected. I will tell you why I've asked that question that a little bit later in the talk. So bear with me. I - the sort of story of why I am asking that starts here and this is the offices of Code for America.

We're on 9th Street in San Francisco probably looks to most of you in the audience like a tech startup. That's sort of what it is. It's got that kind of environment but as Tina just noted last year I spent - starting in June 2013, I spent a year going to work at this office, looks a little bit different and the culture is a little bit different. This is the executive office building in the White House complex so that black fence that you see there is the border you actually have to go through the metal detectors that Secret Service run in order to get into that building which means you going out to lunch is much more complicated than it is here. And I went and did this year of service in our federal government because of a man named Todd Park, who, at the time until very recently, was the Chief Technology Officer of this country. He was the second person to hold that position and he asked me to come help him run a program called the Presidential Innovation Fellows Program designed to bring some of the best and brightest from the private sector into government for these yearlong tours of duty where they would, as it says, innovate. And it was based on the program that I created at Code for America but to do this in a federal level. And I eventually said yes to him but only after saying I think it is great to bring people into federal government to do this kind of work. But I think we have a bigger problem that we need to solve and it is that we are spending truly staggering amounts of money, taxpayer dollars, these numbers are obviously a bit outdated, hello, it's 2015 and this was an estimate from a couple of years ago. But just in contractors something in the order of \$172 billion a year for IT that runs our essentially our relationship between governments and citizens.

But what we're getting for that are websites that look like this that are very confusing that have a lot of legal language on them that often break that you may have encountered. This is just one screenshot from a project I worked on in federal government. And they often don't work and what people's experience of government mostly looks and feels like is waiting in line because the technology doesn't work. Maybe we can't go online maybe the systems that are at the DMV aren't working very well. But we're paying a very large sum of money for results that just simply don't match. And what I told Todd when he asked me to come to federal government was that if you go outside the U.S., this is starting to be a solved problem. There is a

group in the UK called the Government Digital Service. It is run by a remarkable man named Mike Bracken, who was formerly the head of digital for The Guardian newspapers. And he has brought together some of truly the best and brightest in the digital world in the UK to make government services work. They started by putting up something called gov.uk.

They looked across their equivalent of a federal government and found as we did, there are thousands and thousands - we actually think in the federal government there's about 30,000 websites where the government is publishing information and hosting transactions that they think that the people need. But it really - your experience is really not a useful one. And they pulled all of those together and put them under one domain. I know that it looks a little bit like Yahoo! in the 1990s, but it turns out based on user need this is a great way to get people to the information that they need. They started by basically fixing the publishing aspect of what they do, simplifying the language, throwing out the vast majority of web content and republishing on a modern platform. And then they moved on to transactions where they are able to actually make these transactions that you need to do with your government very simple and easy to do. We don't have carer's allowance here but think of it as equivalent to a benefit that you might get if - and many of you are too young to be applying for benefits from the federal government other than your student loans if you have them. But you probably - if you have student loans, have been through pages that look much more like what I showed before than these very simple clear transactions that simply work. And what I told him also was that this actually - this far increased experience that the British citizens are having with their government doesn't cost more, it costs much, much less. So it was costing about a sixth to publish that content on gov.uk to have far, far more users of that content than what they were doing before and that's before they actually got to the transactions.

So I pitched Todd on this idea that we need to have an American equivalent, the American GDS and could we work on that in my year in government and he graciously agreed and so I went to DC and worked in that building for a year on this for several months getting this ready, people were pretty excited about it and then October 1 came around, October 1, 2013. You guys probably don't remember it, but that's the day that healthcare.gov launched and failed. So my work stopped for a bit. My boss disappeared. He was asked to pull together the team that was going to figure out if the site was savable and in fact, save it. This is some of that team. They ended up on the cover of Time magazine. That's Todd hiding there in the back because he is very shy and doesn't like the spotlight. Right in front of him are two ex-Googlers, Mikey Dickerson, who really ended up leading the team that fixed the current site, the site that the contractors had built kind of with duct tape to sort of get it through the enrolment period. And then next to him, Ginny Kim, who put together the team that rebuilt the site with a team of about 12 people over three months, something that had taken several thousand people and about \$600 million of tax payers' dollars to do and didn't work.

She rebuilt with a team of 12 in about three months. I got to know this team really well. I feel very privileged to have gotten to know them. There were many, many late nights at the office and in fact, one thing that you should know if you ever meet these folks, or many - there are many other folks who are not pictured here obviously. I asked Mikey once, how many hours did you work and he was actually a subcontractor to a subcontractor to the main contractor paid hourly for his work on making healthcare.gov make it through the enrolment period. So he could add those up pretty clearly and he said, I looked at it and at one point, I had worked 20 hours a day straight for 100 days, for 100 days straight. That's heroism. And I think almost of the people who worked on that team did that and if you ever meet them, please thank them for their service to this country because that's quite a feat. And one of those late nights, I was - we were talking in the office about why they were doing this incredible work and Todd was getting the letters that were being sent to the President about - from people who were benefiting from the Affordable Care Act which is what healthcare.gov was implementing. And there were many, many of these letters and I remember some of them and I remember that all of them had a deep impact on me.

But one that I remember in particular was from a mom who said that she - her family had a history of diabetes and cancer but for the past 15 years, she had to choose between healthcare for herself and healthcare for her kids. And that the ACA had meant that for the first time in 15 years, she had gone to see a doctor. And that's why these guys were working 20 hours a day for 100 days straight. And that's why I asked about health insurance because it is really hard to understand the really difficult problems that we face as a country if you don't experience those things yourself and there's very limited opportunities for us to be in that line of fire. Many of us come from backgrounds that do - where we don't have health insurance. But if you do, you need to have opportunities to be aware of the problems that our country faces. There was another time that we were in the office very late at night when the guys were actually going back to the operation center in Columbia, Maryland at about 2:00 in the morning. And I said, guys, you've got to go to sleep sometimes, why are you going there in the middle of the night and they explained to me that in fact, there is pretty high traffic on healthcare.gov. This is about November, December. There is pretty high traffic on healthcare.gov in the middle of the night but not from desktop browsers, from mobile browsers.

That people were hitting the site in large numbers on low end mobile phones and the pattern was that they would get online - a particular user would get online in the middle of the night, make it about two steps further in the process of enrolling in healthcare, save his or her progress and go back on the next night. And what you're seeing in that moment is using - looking at that data and seeing real users who have real needs. Those are people probably who are working more than one job who obviously don't have Internet access at home and this was the only way that they could navigate this really difficult and

complex site and this complex process. But they were going to spend a couple of hours every single night when they knew the traffic was lower to just get a little bit further with it. I think the lesson to learn here, of course, first is that if you want to recruit some of the best technologists in the country, give them something to work on that really matters. And they will succeed. They will not fail their tasks. These guys were amazing in what they did. I think the second lesson is sort of grimmer which is that however you may feel about a policy like the Affordable Care Act, do we really want to live in a world where we can't actually implement the policies that government creates, whatever policy that might be? We almost lost the Affordable Care Act because we couldn't make a website work, something that probably many of you in this room could have done quite well. And there are a lot of reasons why that's true.

But that is a place I think of fundamental anxiety as a culture and that's why it drives a lot of the work we do. And the third lesson I think from healthcare.gov is that - this was headline news of course for many, many months, or at least for many, many weeks primarily because it was the President's key policy initiative but also because the middle-class was having to use this site and in fact, if you are poor, you're kind of using something like healthcare.gov everyday, Ezra Klein put this very, very well at the time and Tim O'Reilly wrote about this as well in a post called What's Really at Stake in Interfaces to Government. But he says, most of the time we just don't even know about the pain and trouble at interfacing with government bureaucracies that the poor struggle with every single day. And of course, it's not just the poor, this is a famously entrepreneurial community, so many of you will either have already or will go on to start businesses and when you do, you also will be dealing with filing things like business permits and the sort of morass of things. Many times your lawyers will be doing it. But you will know a little bit about some of that pain of dealing with that government bureaucracy and the forms that are needed to fill out. And it's really that sort of more day-to-day frustration that drove me to start Code for America. But in starting it, put me on that path to understanding some of really what's at stake in our country and then sort of brought my work at the local level and the federal level together for me. So I thought what I'd do is take a little step back and tell you about Code for America and a little bit about how it got started and some what we've learned over time. This is our first class of Code for America fellows that came together in the beginning of 2011.

So these are folks with several years of experience in the industry, average age of our fellows tends to be about 29 or 30 but recent grads are more than welcome to apply, who take a year out of their careers to give a year of service to their country and we match them with local governments who want to try things in a more startup sort of spirit. And we have a very structured program. I can tell you a little bit more about that in Q&A but I think I'll tell you more about sort of the work that we have done. One of the first things that happened, we had a team working with the City of Boston in 2011. They actually went in to work on a sort of data platform for education in the Boston Public Schools, which, at that time in our existence was very hard for us to get access to data, movement of open data and trusting data to be outside the walls of an institution was a little bit younger then but - so they were fumbling around with this sort of very grandiose project of an API for all Boston Education Data when the mayor - lovely mayor, may he rest in peace, he was a fantastic mayor in Boston, came to our fellows and said we have a really big problem. We have changed the rules about how kids get assigned to public schools. It's essentially now around trying to have more kids be able to walk to school. So it's essentially a mapping problem and a couple of other rules in there. But what we've done is published a 28-paged printed brochure with type that small and sent it to all the parents who are now in tears because you can read the 28 pages of four point type and you still have no idea which schools your kids are eligible to attend. Can you help us? And so one of the fellows was working on this API, said let me take this and went off.

And eight weeks later, he published - I don't have the slide of the early version, this is what it looks like currently. He published something called DiscoverBPS.org, put it up I think on Amazon and then basically you type in your name, the age of your - the grade that your kid's in and if you have any siblings - the kid has any siblings in another public school, you put your address in and it returns a map list of where you can go to school. So it takes a very long process down to a couple of minutes. Great, fantastic, that's pretty easy to do. But what we - learned in that process we were like, okay, what do we do next? The folks in city government came to us and they said, you don't understand if this had gone through a regular procurement process, this would have taken us at least two years and cost at least \$2 million. And I don't think we actually realized at the time because what we were saying - what we were trying to say to the world was, look, these interfaces to government can be simple, beautiful and easy to use. We can have a relationship with government that's as delightful and positive as we have with other institutions through - that are mediated through digital technology. The other thing that really got me about that was it wasn't really about the money, it was about the time. Imagine being the mayor and having to go to parents and say, yeah, we will get you that in two years. In the meantime, your kids are trying to enroll in school.

So this really set a pattern for us of - there's data that needs to be made usable to a certain set of users, we can do that pretty easily and we can put a nice front-end on it and it costs kind of what it should cost in the real world. The team that did - one of the guys who was on the team that did that went on to work on a problem that we just discussed, this idea of business permits if you go to start - this was - the use case here really was a small business, not necessarily a tech startup in Santa Cruz, California where they were realizing how difficult it was for someone to start, say, a drycleaners and all of the different forms that you need to fill out, they need to be filled out in a particular order, you don't know how much each forms - what fees come with each form, people were throwing up their hands and actually not complying with the law. So this is an early, early version

of something called OpenCounter where they said we're just going to start by explaining the process to people. And they first just wanted to make it human. This is where we learned about just changing from a very bureaucratic language to a very human language. These are the people you're going to have to go through. We're not changing that but here they are and they are real human beings, they are open - by the way, their office hours are 7:00 a.m. to 12:00 p.m. so you don't have to go in the afternoon. We described a little bit about the process, give them a wizard, and there was a point of the process where you'd then had - you'd applied for a number of things and then you also had to go through zoning clearance, do you guys know what that is, zoning.

And it was the part where users would typically show frustration. Now I've got to do zoning check as well. Why am I being required to do this? And just some basic language that tells you, zoning basically makes sure a rubber factory that would need to put out toxic fumes can't open next to a pre-school. This is why government exists and sometimes we need a brief reminder of it as we're going through a difficult bureaucratic process. This actually has evolved now. This is a screenshot from an application that this team has done now, turned into a real business called zoning check. So whereas you would have to go through lots and lots of different documents and information to try to figure out where you could place your business, now you can just click on Palo Alto, I'm going to open an office, I don't know where I want to be, just show me where I could and then it'll give you the green spots, I assume that's university avenue that little bit of green spot there. There you go. We make something much, much easier to do and we can do this - we can run this play hundreds and hundreds of times. But that really is what we think of as this notion of, let's make government work for the people.

It's not that hard. We just really need to do it. But that's not all there is to the story because the history of our country doesn't just talk about government for the people, it's also built into our narrative - our historical narrative, but it's also government by the people. And I want to tell you a little story that illustrates the power of that. These were the fellows who were assigned to our Honolulu project, see, we go great places. In 2012 and in fact, Sheba Najmi at the top there is a relatively recent Stanford grad who came to us. And in Honolulu, our city partners there were asking us really to fix their website which was tens of thousands of pages of content backed by no CMS and that was not something that three folks could do in the space of one year realistically which is the timeframe of our fellowship. So they kind of kept saying, I am sorry, that's not something we can do, let's find another project. But both the residents of Honolulu and the people in the city hall kept saying, please, please, please, fix our website. So they said, let's start with the problem.

This was the website at the time, it's a pretty classic government website, it starts up in the corner with government, agencies and departments online services and the big chunk in the middle is dedicated to news releases. So we call this like a very typical - this is what government wants to tell you. It doesn't have a lot of relationship to what you need from government but it's what we want to tell you. So they said, okay. If we care about what the users actually need, let's look at the search logs and they went in there and said, what are the top terms - turns out the top searched term was driver's licenses which is not an anomaly, very often Americans do not understand which level of government does which function. But in this case, Honolulu actually does handle driver's licenses for the state of Hawaii. So they said okay, great, let's put that in there. If you type driver's license into the search box at Honolulu.gov, you will get a page that looks like this, there's actually about a dozen pages that look like this. You will click through one of these and you will get another page that looks like this. And this is something that tells you that expired driver's licenses of a member of any component of the United States Armed Forces who is on active federal service gets an extra 30 days, it's stuff like that, dozens and dozens of pages that look like this that do not actually tell you how to get a driver's license.

And so they decided that what they could do is just for us to show what's possible and they borrowed from that gov.uk site I showed you earlier, a very basic search interface and they said, look, let's not port all that content onto a new CMS, that's a fool's errand, but let's create our new content. If you type driver's license into this Honolulu Answers interface, you will get something like this if you click that second link, you will get a page that says, how do I get a driver's license. I need to go here, I need to bring these things, I need to take an eye test, I need to pay a fee and here's how I schedule my test. Boom, done. This is the content that people are looking for and this is not, as you can see, a technology problem, it's a content problem but the technology is a part of it. But they knew at that point that there were still those tens of thousands of pages of content that they weren't going to tackle and tens of thousands - maybe not - thousands of needs that the residents of Hawaii had that were not being met by the top 10 search terms that they created great content for. So I assume everyone here has been to a hackathon, has anybody here before been to a writathon? Yes. Not fair, Tim, we know that. I believe that the writathon that the Code for America fellows held in Honolulu was one of the first ever, I now hear about them around the country but what they did was they took the questions implied by the next 70 search terms - 70 most frequent search terms on the site. And they put them up on a wall in a co-working space, near city hall on a Saturday afternoon and they invited the people that they had met through their research both people in city government and just concerned citizens and about 60 people showed up.

And they spent the day writing in clear, simple, human language the answers to those 60 questions. They would edit each other's work and they would check all of their work with the folks in city hall to make sure they weren't saying anything technically inaccurate. And at the end of the day, they had questions to definitely the top of a long tail curve of what people

were coming to Honolulu.gov asking. And it was clear and simple that in a way that their other fellow Honolulu residents could understand and most importantly, they had an amazing time. They actually had a party and a party with the mayor coming by and celebrating is not what most people think of when they think of government technology. And one of the real lessons that we learned there which Dr. Selig alluded to in my - speaking of my TED Talk is that we have come to the understanding that there are so many concrete ways now that we need to redefine participation in government. It's not just about having a voice in an issue. There are so many voices. It's about offering your hands to actually fix the problem.

And I think we are at the verge of being able to say there is no excuse for complaining we can create ways that we, the people, can fix these problems. Another lesson that we learned from Honolulu Answers was that this stuff can spread. There are about a dozen cities now that have a version of it including where I live and where Tim lives in Oakland, California. We created Oakland Answers in the same format, we held a writathon near city hall one day and in fact, this is the question that I - the first question that I answered. I keep chickens in my backyard in Oakland and I wanted other people to know that they could do that. I am, by the way, not a programmer. So this was a great way for me to contribute in a way for anybody who is not technical to contribute to government IT. And Tim answered a great question too. And other dozens of cities that are using it, in fact, there are federal agencies that are using this core technology as a way of just simply publishing clear, simple information to their users. So you start to think about the ways in which it's not - this really does start to look more like, not an Internet startup but that this is really working like the Internet itself.

Solutions can come from anywhere, we do not expect to do that work and they can start to spread with a lot less friction than we usually associate with government technology. So that was really our sort of getting that there this top-down and bottom-up piece to this solution. Government needs to work for the people, but it's only really going to work if it's also by the people. And that was sort of the conclusion that I'd come to right before I left to go work in federal government. But I also was on this journey of understanding what it's like for folks who are less privileged in our society to work with government and that's really where I started with the San Francisco team who worked with Mayor Ed Lee on a problem. Again, that most of us probably don't have enough access to which is the problem of enrolling in food stamps. This is the application process or part of the application process for CalFresh, our state's nutrition assistance program. There are over 50 screens and at the end of it, you can print it. It's - at the end, you will get a call and still have an interview and that - so this is part of the problem that they identified. But the problem they were actually looking at is that once you, if, you make it through all of those several hundred questions and actually get enrolled in a program and start receiving these benefits, you will get an EBT card that looks a lot like a credit card.

And typically, you will be on it for about a month and a half and then you will fall off the rolls. And this is extremely expensive for government because this is not easy on the user but it's also not easy on the government bureaucrat who is processing these forms. So when you've spent all the energy to get someone enrolled and they fall right off and have to do it all over again, it's a very inefficient process, they said can you help us with this problem of churn and we say great, do you know why there is this problem of churn and they said, well, we don't exactly know but the fellows actually enrolled in the program so that they could experience what, food stamp recipients were experiencing and the first thing they found is that you start to get letters in the mail from the Food Stamps Office that read something like this. And I like torturing people, forgive me. I am going to read this to you for a minute. Your food stamp benefits in this quarter did not change as a result of the documents/information that we received because it would not have resulted in an increase in benefits. Your food stamp benefits in this quarter did not change as a result of the documents/information that we received because the new rule says that when you report some changes, the county cannot lower your food stamps until the next quarter. The county has reconfigured your food stamps using information you reported and the food stamp amounts - it goes on and on like this there's pages of these things and you get them really often. Now, somewhere embedded in one of these letters is the notice that you're supposed to send them some additional piece of documentation or they are going to drop you from the rolls and no one reads the letters. And if you do read the letters, you don't know that that's what they're asking for.

And this is why people were falling off the rolls. Did I torture you enough? Do you want me to keep reading? So we got a lot of letters like this. It was super fun. So what happens when you don't read that letter and you don't comply is that you have this lovely EBT card and you go to the check-out counter to get your food and you're the first person. You finally get to the front of the line and your groceries are all bagged up at this point and they slide your card and you are not going home with those groceries and the people behind you in line are going what's wrong with the welfare mom in front of me. So you are both humiliated and hungry and the data show that a significant proportion of Food Stamp benefits are spent at midnight on Wednesdays, because that's when the food - the EBT cards are recharged. Who goes shopping at midnight? Well, probably college students, other than you. People who are hungry go shopping at midnight. So these are people. Again, this is another time where you can see - you're looking at the data and what you're seeing is a person in need who can't get what they need because of bad government interfaces.

So this is the moment that that team that I showed before, this set of developers and designers doing a year of service chose to focus it on, how could we keep the woman or the man at the front of the line from having that your card is denied

moment. And they tried a whole bunch of different things for several months. They tried putting up websites explaining the process, they had translations of the letters and that didn't really work. They tried a couple of other things. And finally, they landed on the notion that we could just text people. They now - and what they - it turns out in all those several hundreds of questions and those 50 screens in the application that you saw earlier. There isn't a question that asks for your cell phone number. So they actually had to do a call-a-thon in order to do a pilot of this where they got permission to call a subset of CalFresh users and asked them for their cell phone numbers and asked them for permission to text them and then they piloted a program where if you were about to fall off of the roll, we would text you. Your CalFresh benefits stop at the end of this month, questions, please call us. And they found that about 40% of people did call and then didn't fall off the roll.

So that's a pretty significant intervention. That's what they were able to do, believe it or not in almost an entire year of work at Code for America with all of the barriers that came into it. And there was a very successful program that they are continuing to work on. But in investigating this problem, they found so many other problems that they really needed to work on. Because of the process I showed you, there are at least 3.5 million people who - in California who are eligible for CalFresh but not getting the benefits. There's about \$20 million a year spent by Food Stamps recipients in ATM fees which go directly to the banks that have already charged the program, it's a long story. And when you call the office, you will typically wait on hold for about 45 minutes before you can talk to a caseworker. So these are small things but what they really got to understand because they were enrolled in these programs and talking to people, is that these big things really add up. Even just things like the fact that you go to the office and you're asked to fill out a form using a very short pen on a wall that's not even flat. This is the kind of - this is maybe the analog of the digital experience but this is sort of what we're putting people through all the time.

And so they said let's actually go and these fellows decided to stay on and work with us on this problem, let's actually go try to do a surround set of features that will actually make this experience better. So remember this long application. How about this? Is this a little bit better? This is running on an average mobile phone, it's about seven steps, you can then sign it and you're done, now you've enrolled in food stamps. You can - they've put these on iPads and now caseworkers all over the city of San Francisco are taking them to people who they know are eligible and just having them sign up right there which just reduces so much of the barrier of getting them into the office and getting them through these 50 screens. What's another one? You don't know how to use your benefits. They don't know who actually takes them. Well this is again on a basic smartphone, in about two seconds, it will say, the closest place to you that will accept your food stamps is here. This is really an important one. People don't know how much is on those cards and it's a sort of a long complicated process to call in and check your balance. Just sort of hack together a thing where if you text your - the code on your EBT card and we'll return your actual balance on your card really quickly.

And this one is really key. It's very simple. If you are on hold for 45 minutes, and you're on EBT, you probably don't have an unlimited plan and you also don't have 45 minutes. Who has 45 minutes for that, but this will just text you; the office will call you back when there is a caseworker who can talk to you. I know I am not wowing any of you engineering students with complicated technology, but I hope I am describing something that really makes a difference in the life of somebody who needs a little bit of a break. By the way, we just did this work, we didn't actually have to get permission from the City of San Francisco, we just sort of do these projects and throw them over the wall. When we threw this one over the wall, Leo O'Farrell who runs the SNAP program for San Francisco said, this is great, but one thing, I have to be the voice that the caseworker hears when connect makes this connect because they need - they want to hear this is your boss, Leo O'Farrell, please hold the line, I have a client waiting to speak with you otherwise, the caseworkers would hang up. So the enthusiasm in government people really misunderstand that there is a huge enthusiasm for these creative hacks to make things work better. The important thing, though, is we're getting beyond those creative hacks. This work has enabled us - we've now been invited by the State of California to actually come work on the core eligibility system that runs all of these programs which, by the way, is a \$500 million contract with a vendor and the program is written in Cobol and we have another 10 years, I think, or we're somewhere in a 10-year contract to maintain a very large Cobol application.

But we're going to help them. So this is sort of a way of surrounding these folks with just a bunch of little hacks just to make their day a little bit easier but what really it is, is it's a set of things driven by understanding the user need. And this is the thing that overarches all of our experience at Code for America and also ties us back to that Government Digital Service in the UK that I talked about earlier that's been so successful. Why have they been so good at breaking the big IT cartel, so successful in delivering Government Digital Services that really work for the British citizens, not because they had some magic sauce, not because they knew the right technology stack, not because they had authority though they did have that, but because they had a set of design principles that were the right principles. And they got agreement around them. All of them are really valuable and these are valuable, I think, not just for government design, I think they are valuable for any kind of service design that any of you in the room may be doing or will do in the future. But I want to call up the first one in particular, because it says start with needs and then there's a little asterix and it says user needs, not government needs. That asterix says it all. I have spent enough time in government to tell you that your day is dominated by government needs and those are things like compliance and regulations that I understand why they've come about, they serve an important purpose and I don't need to denigrate them in any way but it means that 99% of your time is spent meeting those needs instead of meeting the need of an actual user.

They have made sure that that governs everything that they do.

That is how we try to make sure that that governs how our fellows and other staff work when we are doing government design and that's how you come up with let's actually make this work for people on Food Stamps because you actually care that that person not have to go home with no food to feed their family. So I have - this is our mission statement for the organization. We believe that government can work for the people, by the people in the 21st century but only if we make it so and we never mean we, Code for America, we mean we, the people, we mean you, we mean it is our job. No one else is going to fix government for us. But I also think that sometimes the people can be a little bit grandiose because what we're really saying is government can work for actual real people who are our neighbors and our friends. And by actual real people who are us and our neighbors, and our friends. That's really what we're saying and I don't think we'd do this work if we weren't driven by that understanding. I want to return to the - oh I did have that slide in, great. So this connection to those real people which I saw so clearly with those folks trying to help people in food stamps and so clearly with the amazing team that saved healthcare.gov really drives this story of government technology to a happier ending. And so while of course it was an absolute disaster for a long time, the team really did pull it out.

I love this headline, healthcare.gov is slightly less terrible today, adds plan preview feature that occasionally works. And of course in the end of the day, we enrolled more people in healthcare than we even thought was possible before the site had broken. But the real end of the story is I went to government - I went into federal government to try to create what I called then the American Digital Service and we did succeed in that. We got Mikey Dickerson to stay to actually lead this effort and we do now have an equivalent to that Government Digital Service in the U.K., it's called the USDS and the best technologists in the country are leading it. We've also published what we call the U.S Digital Services Playbook, which has again not just a playbook for government digital services, a playbook for anybody who wants to create services that work. And it - again starts with understanding what people need and address the whole experience. Number four is one that I worked on a lot, particularly during the time that I was there. The ability to build services using agile and iterative processes, the Federal acquisition regulation is a 2800 page document that determines how we build and buy technology. It's not very agile and it doesn't allow - it has not particularly allowed for iteration, but we actually worked with the Office of Federal Procurement Policy in the time that I was there to publish the TechFAR handbook, which reinterprets the rules of the federal Acquisition Regulation, it's not only reinterpretation it's an interpretation to actually say that we want to use our contractors to support an iterative and customer driven software development process. And the reason I bring this up is because I need you all to be perfectly clear that if you want to do the kind of work that you would do at a Google or a startup or wherever you might go to practice your engineering or design skills, you can actually do that work in the federal government now.

There are no more excuses and you can certainly do them at the local level too. It's not always easy, but we have done the hard work - not that we're done with it, but we've done some important early hard work to make sure that you can practice those skills in the service of the country. It is so important to me that you understand that, and that you understand this as a - hopefully a part of your career, as it evolves over time. Because government has not thought about the digital as a core part of what it does for far too long and we're paying the cost of it. When healthcare.gov shipped and failed on October 1st, most probably a couple of days afterwards, when I was getting my head around what that meant, I thought back to a blogpost that my colleague Tom Steinberg in the U.K. had published and this is back in February 2012. He had written a post memorializing a colleague of his who had died five years earlier, who was a genius and a polymath and could have done anything in the world with his skills, but had chosen to use his talents on essentially civic technology. mySociety is kind of like the Code for America of the U.K. And he wanted people to understand what that meant. So that his passing - that his life still had meaning to the community around him.

And when Tom was writing about it, he said what Chris fundamentally had right was the understanding that you can no longer run a country properly if the elites don't understand technology in the way that they grasp economics or ideology or propaganda. And his analysis and predictions about what would happen if the elites couldn't learn were savage and depressingly accurate. He wrote that in 2012 before healthcare.gov failed and before we all realized that if we passed immigration reform, it too would probably fail on implementation, because of our systems. Because we have fought for so long that the people who should go into government are lawyers and economists essentially. We must have a native digital capability in order to govern. I know I'm preaching to the choir here, but I do think it's - we all have a duty to explain this to others, it's not just technology, right? The good - what good governance and a good society look like is now inextricably linked to an understanding of the digital. And I think that is a burden that your generation bears to explain that and to bring that into this one institution that is designed to serve, not some of us, but all of us. Let's see, so another way of saying this is not just the government can work for the people, but that government can work, but only if we make it so. So with that I would encourage you to of course get involved with Code for America in any way that you would like and if you have questions about working in any level of government, I'd be delighted to answer them. Thank you very much.

Any questions? Yes. You mentioned some initiatives at the local level, what are some system you do to scale them up to a national level? That's a great question. Please repeat the question. Yes. The question was we have done some interesting

initiatives at the local level and how are we scaling them up to the national level? Well, one example of that would be and its scaling really to the state level at this point is our work with the California department of social services where they've noticed our user centered and iterative approach and said this is obviously what's needed. You could go city by city, county by county and try to do this for users or you can come to us and we will hit all whatever is it, 38 California counties, so we're sort of going up the stack a little bit there. This movement is still pretty early. I think one of the early indications that these things scale is simply that about a year and half after we created Code for America, a new form of public service for technologists, the federal government did the same. So some of it is just sort of passing the baton back and forth. The real thing that actually unites them is data.

Data flows up from the local level to the state to the federal government and back down, the more that we can create APIs and find ways to break the silos in that data and have - be able to build our own interfaces to the services and to the data. The more we will see national scale things and that work is relatively nascent, I guess, in the scheme of things but coming along quite well. Yes? If I wanted to bid on these contracts like to bid to build healthcare.gov. What would prevent me or my company from doing that? What's the biggest thing I guess? How long do we have? So technically nothing, and.... Please repeat the question. I'm sorry. What would prevent you personally or a company that you might found from bidding on something like healthcare.gov or another government contract? The answer is you would need to have a pretty robust muscle in your company for government procurement and compliance. If you had that, that's great. In many cases though you also already need to have been in business for several years, but these are some of the rules we're trying to change. You would need to have a history of government contracts which makes no sense right, I mean, there - it kind of sometimes gets down to the nitty gritty where it's like it's - there is so much regulation, one of our colleagues complains who does work for the federal government that every year he has to certify that his bathrooms are labeled properly.

Like I don't know why we care, but apparently we do. You can do it and I think that the barriers are coming down, because there is a clear understanding at the federal level and at the local level that those barriers are getting us the results that are unacceptable to the American public and to the politicians. But there is a whole host of them that generally fall into the buckets of compliance and procurement. I had another thing to say about that that is slipping my mind now, but there - I guess what I would say is despite those things we have an huge explosion of what we call civic startups right now. Companies that are doing it anyway, that are figuring out the procurement stuff, that are finding the innovators in government who will guide them through the process. We've had 30 companies go through the Code for America accelerator, incubator and start tackling the government market and just having frankly great success. So don't let my negativity scare you off, it's still a very worthwhile and it's partly worthwhile because the size of that market. Government contracts are very large. You can bid for half or less of what the competitors are bidding and still have quite a lovely profit margin on this work. There is also a ton of business models for civic startups that don't rely on government contracts.

Companies like SeeClickFix that works with local government, they do get some of their revenue from government, but they have a very robust consumer model too where they're just interfacing with the citizen. Is there advertising revenue there? Yes. Yes, they have advertising revenue based models. We're going around a huge wide range of different business models for civic startups of which government contracts is just one. Can you talk about the Govtech fund while you're on that? That's right. There is actually now for the first time ever a venture capital fund devoted exclusively to government technology run by a fantastic guy who has been a mentor to us for several years named Ron Bouganim. It's a \$25 million fund. Called the Govtech fund. Called the Govtech fund, thank you. Think you were next over there? Why did you decide to do a non-profit as a model and what challenges did that have for you for funding? We decided to do a non-profit, because I was asking at the time for some of the most talented people in the country to work for \$35,000 a year.

And I felt like we should probably make sure that that they felt like their efforts were going to something that was at its foundation, charitable and mission driven and I haven't regretted that decision honestly. Grant funding was a great way to get this thing started. We certainly have a significant bit of our revenue for Code for America does come from governments now. So it's not exclusively funded by philanthropy and I think that's probably part of our future, but I like us being a non-profit actually quite a bit. Thank you. I think we had one right up here. I was going to ask the exact same thing. Oh, you ask the same thing. Okay, great. In the back.

So the organization is called Code for America, yet lots of other countries have exactly the same problems. But it seems like it's very scalable from an international perspective. What is your organization doing or what are your thoughts on scaling this out to a more global kind of initiative? Yes, so we've been contacted by some double-digit percentage of countries on the planet about this. They do pretty much all have the same problems in different degrees. We are a couple of years old and opening up offices around the country seemed like a bit of a leap. We have taken an approach - a page from Teach for America which we obviously reference in our name who decided also not to expand globally, but to create a coordination effort across local efforts to do the same thing. So we actually have a program called Code for All that helps connect the efforts of Code for Mexico, Code for the Caribbean, Code for Germany, I mean, those are the three we're working most closely with, but I think there is 50 or 60 groups in that network that are all helping each other. And by the way, we learn as much from their

efforts as they do from us. So which - it truly is about just expanding the experimentation surface. Yes.

What would you think about taking this type of talk to some of the people that are actually using the services like in CalWORKs for example and some of the women or men that are involved in that program and so since its coding for the people by the people, the people that are actually using it can learn to increase their income or do something by having a similar talk there at the - like welfare offices or some of those employment places where they can pursue coding, because they're actually using these services. I think I understand your question. So people who are using these services might actually learn to code or design and be part of the solution? Absolutely, and I think our new work in economic development has a - very big component of this where we're realizing that if you're going to increase the economic vitality of any city in this country, a lot of what you're going to need to do is to help a wider swath of your community have digital skills. That's not particularly what we do. So there is organizations like code.org and many other organizations like Hack the Hood that are helping folks actually learn to code. What we're doing generally is helping on the bureaucratic side where for instance you may have a work force development program that is simply inefficient and badly implemented in terms of its interface and we can help fix that, but it is absolutely a part of the program. I'm going to just - take another question, if that's okay. Yes? So just based on the work that we've seen it sounds like a lot of these projects kind of solve problems on a case by case basis and yet a lot of the problems, it seems like the fundamental problem that some of these other problems stem from is a lack of understanding of technology at the government level? That's true. So I'd just be curious, given your experience in government and with these projects as well, how do you think we as kind of the next generation go about fixing that underlying problem, which is a lack of understanding in government? So the fundamental problem is a lack of understanding of technology in government, Could not agree more. How do we go about changing that? Wide variety of different answers to that.

I think one of the things that I would love to see is that by five years from now, everybody with great digital skills in our country not just in the Stanford community or the startup community, feels that there is an expectation that they will do service to - in government for some period of time. I'm not saying that everybody needs to go have a full career in government, though I think many have decided to do that and not regretted it - have felt enormous satisfaction from their work, but I think a critical component of it is, especially if your aspiration is to go build a startup and have commercial success, after you have an exit, there is a year or two where you should go work in government. Great, great models for this right now. Jascha Franklin-Hodge who was one of the cofounders of Blue State Digital, which helped get Barack Obama elected is now the CIO of Boston. I can - I think in the interests of time I won't give my long litany of other examples. But there is also just ways to get involved with this movement being a fellow, mentoring startups, doing a civic startup yourself. I'm sure you would all agree this has been incredibly inspiring. Please join me in thanking our wonderful guest. Thank you so much.