



EPISODE 3: MAPPING INNOVATION

PODCAST TRANSCRIPT

Pre-Roll (00:00):

The federal innovator podcast is brought to you by Accenture and produced by government executive media group studio. Two G changes all around us and happening at light speed at Accenture, we see change as a constant source of energy and inspiration, and we're helping deliver the change that matters right now with bold thinking, try to test it innovation, the best in technology and a tireless focus on people. Learn more about how Accenture can help your federal agency put change to work and meet your mission. Visit [accenturefederal.com](https://www.accenturefederal.com).

Stephanie Wander (00:38):

Consumer expectations are at an all time high citizens want the same great experience when engaging with government services that they get from commercial products and services. The same goes for internal users and customers too. But designing with the user in mind is critical for internal facing applications and innovations users of government systems include citizens looking for easily accessible information and services, as well as employees trying to work more efficiently.

Tim Irvine (01:00):

That's right. And when it comes to the federal government, transforming experience means elevating mission outcomes and strengthening workflow. And the defense department designing with humans in mind means designing for the

war fighter, enabling them to protect and serve with the tools they need. So what does outstanding experience look like and how can bad UX be a barrier to mission success and how exactly did we bring user-centric design to life in the federal government?

Stephanie Wander (01:27):

We're here to discuss today on the federal innovator, a podcast for, and about the innovators taking on the biggest challenges in the federal government and making change that is more human, simple and enduring. I'm your co-host Stephanie wander, deputy director and senior fellow at the Atlantic council.

Tim Irvine (01:41):

And I'm Tim Mervyn, managing director and lead at Accenture federal studio. Joining us to discuss these issues is called widow chief experience officer of the air force. Welcome Cole. Thank you. It's good to be here.

Stephanie Wander (01:54):

Okay. Since joining the air force as chief experience officer in 2019, you've been in determined to ensure that airmen have optimized digital tools that power their work and empower mission success. Can you start by telling us about yourself and how you became interested in the user experience?



Colt Whittall (02:08):

I think all of us at some level are sort of interested in consumer experience, right? We're all consumers, we're all using technology. We're all using products all the time. I think always going back to college, that was kind of what I tended to gravitate toward the most, but I also had a tremendous interest in public sector, particularly in DOD and in the intersection of it in government and in graduate school intern for three summers at, at and T bell labs and government affairs then interned at the FCC office of plans and policy on the first ever spectrum auction. And so fairly early, these kind of intersections of government and technology and policy were what interested me the most. And then later on, you know, combine that with an interest in product design and consumer product and experience design.

Stephanie Wander (02:58):

And in what ways do you notice impact of good or bad user experience in your own life?

Colt Whittall (03:02):

Friction, mostly friction when you're trying to change from one insurance vendor to another, and you find that you can't just handle it in one phone call, it's multiple calls, take six, seven hours. For me, what impresses me the most is the lack of Virgin and what aggravates me the most is unnecessary friction and wasting my time. You

Stephanie Wander (03:24):

Mentioned friction as being this sort of point of challenge, but we're becoming a gore in a world where I think we're less and less tolerant of friction or are we have systems that make it very easy to move very quickly. How do you think that changes the nature of your thinking about user experience, particularly in your own the air force?

Colt Whittall (03:41):

Well, it keeps me focused. It gives me something, um, it gives me an easy way to talk about it with the air force. And actually it resonates with this theme of war fighter effectiveness and a lot of people when they talk about user experience, this is not a bad thing at all, but they're talking about consumer product companies or consumer services companies. You know, they talk about delighting customers, delighting users. They talk about creating customer retention and reducing churn. And those are all very good things. They're extremely important. That's not my client, I'm the former professional services guy. So I'm kind of always professional services guys. So, you know, in my current professional services role, my client is, you know, the airmen, right? Not about necessarily delighting my customer or my client. It's about not wasting their time. It's about making them feel valued by making them more efficient in their role.

Colt Whittall (04:35):

It's about making them a better warfighter. And when we start talking about things that are a little bit more aesthetic in terms that I like to use are, you know, things like lean and lethal, that is quite a evolution from call center experience to friction, lean and lethal and we're fighters. And yet, somehow they all seem like they kind of fit together. I've noted one time when you had mentioned that in the past that the UX is in the air forces, DNA, like very specifically in its DNA, but what did you mean by that? Part of what we're doing here is trying to help steer the culture a bit, particularly in it, particularly in the acquisition of software. And one of the things that I try to remind people of is user experience and the tools and techniques and things that we do in trying to create a good user experience are really not new to the air force.

Colt Whittall (05:28):

The air force practically invented some of them going back to the world war II era, there was a



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The air force practically invented some of them going back to the world war II era, there was a



wired magazine article that you can find if you Google wired magazine B 17 and Macintosh. Basically the story is that in world war II era, we were losing hundreds and hundreds of pilots and crews and particularly B seventeens and the air force had concluded that we had bad pilots. So they wanted to know how to hire better. Pilots hired Lieutenant Paul Fitz, who was retired. I think at the time he was a psychologist and you know, his job was figure out, you know, what are the criteria that make a good pilot so we can start hiring those people instead so that they don't crash so many planes. First thing he did start looking at the data, looked at the records of the flights and the crashes.

Colt Whittall (06:16):

And he began to notice similarities. He began to notice that a lot of them, you know, maybe the landing gear was deployed too early or not at all. And people began to just notice patterns or maybe, you know, maybe the bomb doors were open and they shouldn't have been. So he found a pilot and they went out, started looking at a plane and they began to realize that the controls all look the same and operated kind of the same. And so they came up with the concept of shape coding and, you know, you see shape coding and everything. Now the levers for the bomb bay doors and landing gear and the flaps, everything else should look and work differently. They should be shaped differently. So that in a under stress environment, situation smoke in the cockpit, lights out, you know, whatever, you can find it, but you see shape coding and everything. Now then the design of your car, it's in the design of practically ever consumer product. You use the air force, went on to do a tremendous amount of research and human factors, applying to pilots and cockpits and all kinds of things. And still does, by the way,

Stephanie Wander (07:13):

Importance of user experience becomes really evident when we talk about lives on the line. Are there other reasons that user experience has become more important to either the DOD or the

air force of late? Why we're paying even more attention to that?

Colt Whittall (07:25):

I talk about this frequently and it's not just annoyance, right? There was an organization in the air force that did a study and found several hours of lost productivity a week on average for their particular workforce, just due to it issues. We have applications that are just miserably designed, the fitness applications notorious. You could probably go to a search on Reddit and many other kinds of social media channels. And if you dig, frankly, not even that far, you'll probably find screenshots of it that airman have posted out there and ridiculed the Hawaii incidents of course, is infamous where you had somebody who needed to do a test of the public alert system and hits the real button right to launch what appeared to be a real alert of an inbound missile. Those are all those costs. And there's also tremendous benefits to a much better user experience, right?

Tim Irvine (08:16):

Productivity on all kinds of things, right. It's interesting to hear this kind of direct line between user experience and mission impact. And I'm curious how you've been able to kind of draw also that line into kind of the cultural impact, like when you're referring earlier to the airmen and thinking of, you know, in terms of retention. So quality of experience and ability to kind of retain people because they feel that, you know, they're given, uh, carefully considered tools and services to be successful with.

Colt Whittall (08:48):

Let's just talk about the application I referred to, right? It's a fitness application. Everybody knew it was bad. All right. The reason that we got it redesigned, we got to redesign very fast. Was that the chief master Sergeant of the air force, Joanne bass, she spotted on social media, airman ridiculing it. She knew it was bad because she's a user of it too.



Colt Whittall (09:09):

Right? And so she literally went to my boss and we worked with the community that owns that application. And it was remarkable how fast it could get redesigned. And to be honest with you, it was done in a month. It just was not that big of a deal to fix it. This is a lot of times the most egregious issues are the simplest and easiest to fix. So that was a case where there was pushback. It was more just a, nobody really could get the edge not, and not even me. And my role could to push it over the line to just get it done. The leaders of the air force understand in my experience that we need to improve user experience, they wouldn't necessarily use the term user experience. So you have to do some translation for them. And then once you do the translation, you find that they're very supportive of improving on these things, feels like the common thread.

Colt Whittall (09:58):

Like when you're talking about seeing the voice of the airman ridiculing an experience about the cultivation of empathy, are there ways that you've been trying to kind of institutionalize at least that, that empathy, or currently having the voice there and then front and center to make it easier, to have an emotional connection with the impact of the decisions and the downstream, you know, issues associated with morale or efficacy or safety, even this is kind of related to empathy. One of the things that I hear again and again, is airmen. I think have a tremendous amount of patience for the difficulties of their part of the mission. They will work all night. They will do whatever it takes. They will get it done. And if the tool is difficult, if there are problems, those are part of their role. And they overcome those kinds of challenges.

Colt Whittall (10:47):

They're tremendous in that. What I think gets people down and I hear this is it's the non-mission critical stuff. It's the non-core mission stuff, right? It's dealing with personnel, it's

dealing with PCs, which is permanent change of station, basically in processing and out processing it basis. There's a million of Northern boxes to check fitness tests. It's not taking the fitness tests. It's not prepping the fitness tests it's dealing with, you know, the paperwork connected to the air force in the military in general. It doesn't like to spend a whole lot of money on the non core mission stuff, but we need to, it has to work so back to how do we listen to airman when it comes to the enterprise? It, we did not have a good way to really listen to users. It was done anecdotally, maybe by people listening, you know, social media channels, various Facebook channels, all sorts of stuff.

Colt Whittall (11:38):

So we implemented basically a voice of the customer program. We call it air force it pulse. And we do a pulse survey last year. We did it every day, this year for operational reasons. We shifted it to every week, which is fine. It gave us same thing. It's very, very helpful. Was the chief experience officer title was that new? Did you have a predecessor? So brand new, the former CIO bill Marian, I knew him and I had reached out to him. And we got into the conversation and kind of crafted the role given that you are the maiden voyage as you're kind of an ambassador, you're obviously executing against programs and simplifying complex systems and kind of building enthusiasm and momentum. I'm curious how kind of the outside of the direct kind of application of skill and user experience to the applications itself, have you been able to foster an environment where people are now, their eyes are open to it to covet it, they see the benefit.

Colt Whittall (12:39):

You got to get the word out. That's why I do conversations like this one. So big part of my role is get the word out about the necessity of doing what we're doing. Talk about what we're doing to get the word out on what program managers should look for. Because you know, a



lot of these folks are acquisition people. And a lot of them don't necessarily know like what's a litmus test for am I staffing UX people appropriately on my team? You know what I mean? So I try to give them simple things to look for, you know, go out, count your developers. And if you don't have one UX person for every, at least 10, but ideally about every seven or eight developers, if you don't have that, you probably have a problem, you know, call me and let's talk about it. I would imagine there are a number of people that are listening to podcasts that are maybe in similar positions where they're on a bit of a crusade to improve experience and maybe feel like they're in a position to need to organically grow. But I think to some extent, kind of empathy for that mission, but momentum, those benchmarks are really great places to start.

Stephanie Wander (13:46):

I'll fight you on user experience. I'm curious what their arguments are sort of against it. And what, what makes it difficult to move forward user experience thoughtfully? Usually

Colt Whittall (13:56):

They have a legitimate concern. That's very practical. Just the other day. I got some pushback and it was on that ratio that I had just quoted. And I was making the point that, oh yeah, you know, we need about one UX person for every say seven, eight. Then somebody basically said, you know, all of our it programs are in sustainment in this organization. And they have maybe a couple of developers and that's all they have access to. So they can't do that. And I'm like, okay, well we can solve this problem. We need to create a shared UX services organization that can help you some small percentage of the time and help you focus on the kinds of incremental enhancements that are both within your budget and within your team's technical capacity to do like, this is an eminently solvable problem, and we can advance your entire portfolio from a UX perspective. So that's the kind of pushback that I tend to give other

folks coming or potentially coming from commercial backgrounds that may be thinking, working in the federal space. What advice do you have for them? Oh, they should do it. And they should talk to me.

Colt Whittall (15:00):

I think people have a perception that we move very slow and we do have a lot of things that do move kind of slow, but then we can sometimes make things happen over fast as a UX person. What do you want most right? You want to design things to get used and you want to engage and interact through the product you want. You know, you know, you want to build products that get used that make a difference. Well, that is what we do. So you want to come build stuff it gets used and makes a difference. You get feedback, you interact with the user community. This is a great place to do it.

Stephanie Wander (15:34):

The changes are paradigm shifts in user experience, whether as a result of technology or new ways of doing business or operating.

Colt Whittall (15:41):

Okay, sure. One of the big ones, for sure, we are evolving into a DevOps, you know, agile kind of environment. In fact, within a big swath of software development, the air force were already totally there. So one of the shifts is UX. When I was in the agency world, working for commercial clients or government clients, most of what we would do was fixed price contracts. And our methodology, frankly looked a little bit waterfalls that certainly 10 years ago and 20 years ago, but even in the last few years, and we can't really do that. So within our environment, we've got to follow more of a lean UX model. I would say design systems are growing in importance and they will help us further improve user interface design across the air force. Another one is tools. So everybody knows all the major design tools. The Adobe UX is the Figma is. And so on. We now need to get



the tools that UX people really want to use. We need to get them installed in our environment and our info security levels so that they can support all of the programs that we have

Stephanie Wander (16:46):

Things symmetrical. If that paints a really good picture of where it's headed first off, it's been great talking with you today before we go. I always like to ask one question, which is what are you making out about right now?

Colt Whittall (16:56):

So just yesterday I saw a fantastic presentation about how AI was used by team New Zealand to win the America's cup. And I took a class in, in the machine learning three or four years ago, and now that's all coming back. And so now I want to go take a bigger, longer class in machine learning.

Stephanie Wander (17:15):

It's really awesome. As a separate recommendation, I would say, if you want to check out a Netflix documentary, personal gold about how they optimize their win on the women's team, optimize their win on indoor cycling. It's pretty amazing, not quite an AI approach, but definitely a high tech approach. It's very cool.

Colt Whittall (17:30):

Oh yeah. I'd love to see that.

Tim Irvine (17:32):

Yeah, that's awesome. I really do appreciate the time [inaudible]

Stephanie Wander (17:45):

So, Tim, what, what struck you from that, from that conversation?

Tim Irvine (17:48):

I, the practicality of like setting some of your kind of metrics and benchmarks that felt like good practical advice because it, I mean, as the first chief experience officer for the air force, I think you're always going to be in a position where you could very easily be pushing a Boulder up a hill many days, if you don't build advocacy and build enthusiasm and that kind of, as you go, cause it's never just going to be about better software

Stephanie Wander (18:17):

When he was like, you need to have like a one in six or one eight ratio or whatever the ratio is that he's out of it, you know? Exactly. I need that user experience person on every team, making sure that someone's keeping an eye on that. That was kind of, yeah,

Tim Irvine (18:29):

Yeah, no, I thought that was insane. Even just like having, if you know, you don't have the ratio of designers to developers and you know, you don't have the tools, then you've got some clear signs that you can make some assumptions that there are going to be some problems down the road or make it even harder to maybe orient to experience

Stephanie Wander (18:48):

If we keep hitting the same thread in some of our conversations. But it just really, almost like the more we talk about whether it's UX or design or innovation, how much it really comes down to being like a human process, that if you're not out there on the front lines, picking up the phone, calling your team, supporting your team, that this kind of change doesn't happen. Isn't it,

Tim Irvine (19:09):

We've heard this in different shades, not with necessarily the word friction, but what was your



take on like using friction and the identification of friction as this way that may be kind of aim effort or prioritize an issue? Yeah.

Stephanie Wander (19:26):

I, I honestly, I loved it. I thought that was like spot on. I think what struck me on talking with cold is just how our world is. We've done so much in some ways to eliminate friction out of certain kinds of experiences, especially with like it stuff. Like we forget how, you know, we can click on something and have a page load within a few milliseconds and we're there and how impatient we've gotten. And so it makes me think that it's potentially a lot harder to get those wins. Are you seeing from like where you said people taking more into account, like user feedback? I probably like a horrible assumption to say, like, I can't imagine that, you know, 20, 30 years ago, like the air force was like here, let me pull my users and figure out like what they want, but this idea of like listening to your users, getting their feedback, getting their input, is that a shifting trend that you see

Tim Irvine (20:14):

It's a shifting trend, mercifully shifting trend. And I think it goes kind of part and parcel with what he's mentioning around lean, not always the lethal Bart, but the lean part of how do you move quickly eliminate waste. And so what we've been seeing more of is intolerance. I think in a lot of federal environments too, it feels like you're wasting time when you're not solving the problem by talking to too many people, listening too much or having too long, maybe discovery phase. What's your

Stephanie Wander (20:41):

Understanding of lean UX and what do you think that means? In this context? I was sort of a newer idea me. I mean, obviously heard of lean and agile, but I hadn't heard of like lean UX specifically.

Tim Irvine (20:51):

I think it's all about removing waste and getting kind of increasing speed to value. That's the context that I would think that Cole was kind of intending it as, so that lean and lethal notion was I think about moving quickly confidently and kind of in a sure-footed fashion with enough information to make smart, informed decisions. And I think that gets at the creation of software. I think it gets at the understanding of the human need behind the experience. And I think it also gets to the prioritization so that it doesn't feel like a large kind of a long gated bloated process to gather requirements and say, this is the most important thing there. It's increasingly easy to use the same kind of customer orientation to the Christian of experience as it is to the alignment of the organization, which I would imagine is a big part of what he's doing.

Stephanie Wander (21:42):

I mean, is there any situation though, where you would say like a lean UX philosophy doesn't make sense? I mean, when you just talk about it, it almost sounds like, well, that's the new reality. That's how we have to design for this world.

Tim Irvine (21:52):

I can't think of any. And in fact, when Cole was talking about some designers may want one more waterfall where you can kind of mother the solution unfettered by, you know, the grimy realities of, you know, development and time, but like perfecting screens more often than not. I think young designers as well, they want to be able to move quickly. They want to work in agile formats. They want to see their work out in the world affecting change. And when you couple human centered design and agile, I think it's much easier to do that. The notion of kind of still designed like paid designing pages and documenting pages and hundreds of them and thousands of them. I don't see anybody clamoring to do that. So even if it's because of that, perfection has gone the second, it leaves



your hands. Like it's never going to be perfect. You're designing extensible systems, not perfect.

Stephanie Wander (22:53):

Thank you for listening to this episode of the federal innovator. Please stay tuned for more episodes. As we explore innovation across the federal landscape. Thank

Post-Roll (23:00):

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