GOVTECH DECODED

EPISODE 10
THE ART OF INNOVATION

[Dominic] If you never fail enough, probably you're not innovating enough.

(Intro music)

[Adriana] Hi everyone, welcome to GovTech Decoded. In this series, we discuss hot tech topics and how the Singapore government leverages technologies to build tech for public good. I'm GovTechie Adriana, your host for this episode. Hi everyone, welcome to GovTech Decoded. In this series, we discuss hot tech topics and how the Singapore government leverages technologies to build tech for public good. I'm GovTechie Adriana, your host for this episode. Today we're unpacking something at the heart of every tech success story, cultivating an innovative culture. I'm excited to be joined in studio by Dominic, GovTech's Chief Information Officer, Hui Hua, GovTech Director, and Jeremy, Software Engineer. Could you share a little bit more about what you do?

[Dominic] As the Chief Information Officer of GovTech, my responsibility is to use technology to help make GovTechies more productive. But I also have three other separate roles in parallel. I'm also the Assistant Chief Executive for Products in GovTech, working with the various product teams to support them actually in the innovation process. At the same time, I'm also working with the Digital Academy and the Partnership and Engagement teams.

[Adriana] Wow, very busy Dom.

[Hui Hua] For myself, I'm leading product teams and we are solving day-to-day problems, like for example, the budget meals, for example, Walking Trails@CDC, even things like, for example, the GoWhere websites.

[Jeremy] Yeah, so my main role is I'm a Software Engineer at CIO office, as well as previously at Government Digital Products. My side gig is that I ran a ground-up hackathon this year in GovTech. It's the first-ever GovTech-wide hackathon to bring together people from across different parts of GovTech, innovate on their problem statements and work on prototypes to showcase to others.

[Adriana] So to get us warmed up, we're going to play a mini-game. I have a few true or false questions, as well as a little bit of a fill-in-the-blanks type question. So we are going to start with the first one, and that's a true or false. Innovation always means something disruptive or high-tech.

[Dominic] False.

(Guest and Host laugh)

[Adriana] Dom, tell us more.

[Dominic] Yes, I feel quite strongly about this because very often, people always think that, oh, you need something very sophisticated, something very high-tech. In fact, I always believe that the simplest solution is the most innovative one.

[Adriana] Wonderful. Second one, true or false. You need big budgets to innovate.

[Hui Hua] True.

(Guest and Host laugh)

[Hui Hua] No, of course no.

[Dominic] You say true, I'm going to jump.

(Guest and Host laugh)

[Hui Hua] False, of course. So of course, we don't need a large budget. In fact, like what Dom mentioned, if things are simpler, things don't need to be too chunky, because the more chunky it is, it's actually very hard to pivot. So therefore, I would say that having a slightly smaller budget, enough, sufficient for you to run and then quickly test it out, that would be a very good idea, that product longevity before you start investing things.

[Adriana] One last one. Let's myth-munch this. Psychological safety plays a key role in supporting an innovative culture. True or false? Jeremy, what do you think?

[Jeremy] This is the token true question. Yes. One important part of innovative culture is empowering people who might be more junior staff, people who might not have so much of a say in being able to speak up, in being able to speak their mind. I think without that psychological safety, people tend to self-censor themselves. That's where innovation sort of gets killed.

[Adriana] So when we talk about building an innovative culture, we often talk about longevity, rather than just having quick wins. So what kind of mindset, what kind of culture, what kind of behaviours do we need to build that kind of culture? And how do we do that in GovTech?

[Dominic] The most important thing, first and foremost, is really the willingness to embrace failure. Always think of it as if you never fail enough, probably you're not innovating enough.

[Hui Hua] When we need teams, sometimes teams do have interesting ideas. Instead of just saying, no, because this is (the) government, we shouldn't be doing this. We should at least let them try. And then like what Dom mentioned, we iterate a few more times. So actually, the [CDC Walking Trails](#) we launched on the 17th of August, in fact, this actually went way back

one year ago. Specifically to get citizens out to be healthy, also explore the heritage around. So at that point in time, it was just a typical Pokemon Go kind of trails where you have a storyline, and then you follow the Ollies and you plot. But we iterated a few versions, primarily because of the different type of trails and also because of the safety. So these are the things where we actually do a bit of dogfooding by walking along.

[Adriana] Jeremy, what do you have for us in that zone, building curiosity?

[Jeremy] Yeah, I think what Dom and Hui Hua mentioned has been quite interesting, the idea about the ability to fail, the space to fail rather. And I think that's why by organising a {build} hackathon, giving people the space to take time out of your regular work to actually go out there, try something new, try something they're passionate about. You can try, it might go great, it might fail. But each year, I think if you keep doing this, it actually builds upon what you've learned the previous year.

[Dominic] Well, you know, when I joined GovTech six years ago, one of the things that struck me a lot was this mantra that a lot of people talk about. That is actually think big, start small, fail early. And scale fast. So I always believe that innovation without constraints is just pure creativity. And innovation exists in that intersect, where you have limited resources, and you're able to make the best out of it to solve a problem in the most innovative fashion. Very often than not, in a lot of organisations, and coming from the private sector, I always have the impression that in government, people are always very scared to fail. Why? Because we're answerable to all the citizens, right? And if something (doesn't) turn out well, a lot of people will be watching us. But in the new world, especially in technology, we're actually pushing the boundaries, and we're actually treading with a lot of unknown. And it is not uncommon for us to actually have failures. So long as the failures are very measured, very controlled, and doesn't happen in such a big way that actually is catastrophic, right? So failing early is really important.

[Adriana] What other success stories do you have from your end?

[Hui Hua] Okay, I actually resonate quite a fair bit with what Dom mentioned about starting small. So for example, I remember when we first launched, I heard about the Budget Meal Go Where, where actually we get citizens to go around looking for budget meals. Because at that time, we had a little bit of (a) problem trying to get the total number of private coffee shops' number up. So why not we leverage on the wider community to snap pictures on where are the budget meals. And this actually tripled up the coffee shops and budget meals that is (were) offering this. So that was actually one of the initiatives which we leveraged on CrowdTask SG, one of our government tech stack.

[Adriana] This is a childlike curiosity, but also the never say die, keep pushing kind of mindset. Wonderful. Jeremy, I know you did GovTech's first hackathon. Did you see any of these behaviours and this childlike curiosity?

[Jeremy] Yeah, I guess even organising the hackathon was a result of curiosity. Hackathons aren't new to GovTech, but I guess where we tried to be a bit different is instead of being given certain sets of problem statements, that people actually propose their own problem statements. I think each of us always has something that we are personally passionate about and something that we want to work on. And when you combine that curiosity with a

platform and space for innovation for them to work on things, I think that's where you get a certain type of reaction where people really go and push themselves a step further because this is something that they personally care about.

[Adriana] I was there. It was really energising to be in that space.

[Dominic] So no, I was going to say that the other thing that I liked a lot about the {build} Hackathon was the fact that the team also weaved in content, weave in curriculum to train GovTechies, to expose GovTechies to new skills. So people often say that to a hammer, everything is a nail. So that now, after a few weeks has passed, people start to have more options to solve the same problem that they set out with. And I thought that was very, very powerful.

[Adriana] So besides the success of building capabilities through the hackathon, what other success cases did you see from the actual projects that were worked on?

[Jeremy] Yeah, so on the citizens end, we have one that recently launched called [AfterLifeSG](). The idea is really for people to find a place to remember their loved ones. So on the public officer end, currently we do a lot of face verifications when you go to the office. But what about using your palm? Do you even use it for payments? What are the sort of technologies that can come through this palm verification technology?

[Adriana] So we were talking about failing fast. Sometimes the failure doesn't come in the mindset, but roadblocks that are put in our way. Could you speak a little bit more about what kind of roadblocks we might see and how might we overcome that?

[Dominic] Roadblocks there will always will be, right? Just as I mentioned earlier on, there will be constraints for us to deal with. But one interesting roadblock that I saw at the very initial phase was actually, in fact, the way that we were being structured and the way we were being funded. While we keep encouraging people to say that, you're encouraged to fail early, you're encouraged to try and really it's okay to fail. But once you layer in a lot of this funding mechanism, suddenly you realise that there's a pressure to provide a set of reports. And all these reports will have to explain why you fail and stuff like that. And this kind of put(s) people into a mindset where they have to do everything in their means to make sure that the project is successful. Otherwise, their resource(s) will be cut. Otherwise, even their own manpower headcount would actually be reduced. But it was something that I felt was somewhere limiting or inhibiting our people at the back of their mind. And people must have that safe space so that they know that it's okay to call it out and there's nothing wrong. There's no shame. There's no accountability issue if you actually call it out early enough to say that, okay, I need to pivot because this is not going anywhere.

[Adriana] So it sounds like sometimes it is the constraints that are given by the system that creates this kind of undue pressure. Sometimes these constraints though, I feel could be a bit like self-limiting beliefs that you talk about it in your head and they're actually not put on you. Do you have any kind of examples of how that might play out?

[Hui Hua] I agree. In fact, sometimes we do notice product teams, because they really love their product. Sometimes we say that, you know, you don't be overly obsessed with your

product and when there's a need to pivot, we should. So a lot of things we notice like, wow, they're worried, right? Cannot fail, this is my baby, right? I must look after it.

[Dominic] Sometimes I feel that when I'm advising different product teams, right? It's always a challenge to differentiate between perseverance to solve the problem and sensibility to know when to try differently, right? Sometimes you argue to say that, oh, you know, you're not trying hard enough. But on the other hand, actually, are you really just being too stubborn and you are just hitting the wall all the time and not refusing to admit it?

[Adriana] Hammering the nail?

[Dominic] Hammering the nail all the time, you know, very blindly. So I think what is really important is that we have to be more focused on the problem that we're trying to solve rather than the solution of the product itself. Truth be told, anybody who works on a product long enough, they should and they must feel passionate about it. But it's even more important to be passionate about the problem rather than being passionate about the product or the solution. Einstein said, right, you do the same thing over and over again, it'd be foolish to expect a different result.

[Jeremy] Yeah. If I start from scratch, it's not because I'm hitting the nail one more time, but it's because I know this hammer cannot fix this nail. I need a different hammer or a different way to sort of make the thing work.

[Dominic] Yeah. It reminds me of something that my professor, I did a chief product officer course in Stanford and the professor shared this, right? He said that product managers often end up actually sometimes hitting the wall all the time. And when you realise that you're not going anywhere, he introduced this framework called IRR, or basically interrupt, right? You need to interrupt whatever you're currently doing, stop, you know, keep pushing it. Then you need to reset, reset your mind, take a rest for that matter, right? And last R is actually to reframe the problem. So you reframe it, and then you look at it from a different angle now. And then that often helps a lot.

[Adriana] So we talked about pivoting just now, right? What kind of pivoting did you do for the CDC Walking Trails?

[Hui Hua] Okay. So for the WalkingTrails@CDC, what we did was we had a long beta testing. In fact, the very first version that we had was very different from what you are having today. We went through three rounds of beta testing up to about one over thousand testers involved in this as we co-create. So I must say that there are, in our iterations, there are many considerations. For example, we realised that, you know, the more senior persona tends to like things to be a bit simpler or fuss-free, while the younger generation like Jeremy would want things to be a bit more complicated, right? Challenging, if I would (may) say so. So the tough one is really how we actually gel the two user needs together and make sure that the product that we deliver can fulfil that, right? So therefore, we actually have two aspects of the walking trail. One is if you want the fuss-free, you want to enjoy the walking trails, you can complete all the five checkpoints and you actually complete your first milestone. Alternatively, if let's say like Jeremy, you wanted to walk and also multitask at the same time by catching Ollie, you could. And that will also entitle you for another $5 of CDC.

[Dominic] One of the interesting things that government products always have is like what you described where we don't get to choose our customer. We always have to be inclusive, right? We have to cover everybody across the whole spectrum. And that sometimes makes the product extremely complicated. And how do you strike that fine balance in between?

[Adriana] Okay, so it's a web app, not a standalone app. What was the thinking behind that decision?

[Hui Hua] But again, same thing back on the inclusivity portion. We wanted everybody to also have the chance to enjoy the walking trail. So we do notice some users having "not smartphones", right? So in order for them to use it, it will be harder. And in addition, there'll be a need to download the app.

[Adriana] So we're talking a lot about challenges. Are these challenges really unique to GovTech or the public sector? Or do you see these things also in the private sector as well?

[Dominic] With the public sector, there is somewhat relatively lesser amount of tolerance for failure. Probably because we are dealing with public stuff, right? And then there's a lot of very high level accountability.

[Adriana] And as a very junior staff, I know it's your first job, but did anything surprise you coming into the public sector? Or anything, you know, pleasantly or not pleasantly surprised you?

[Jeremy] I think there are always a lot of preconceptions about public sector or not. I think part of our job as people in the service is to figure out how can we cut through these things? How can we still make sure that we are doing things the right way with the right considerations, while also pushing back against things that might not make so much sense.

[Dominic] So Jeremy brought a very interesting point, right? I always get that question as well, especially in the early days when I first joined the public service from the private sector. If you think of GovTech as an organisation, 4,000 strong, trying to coordinate these people to work together, that's one thing. But the reality is that we are not working for just GovTech. We are actually the tech arm of the whole government, 150,000 people strong. So you think of an organisation that large, right? Perhaps (the) government is the single largest employer of Singapore. Then sometimes a certain level of coordination work becomes a necessity. And then people may perceive it as, oh, as such, we're actually very bureaucratic. But I guess it's always also the framing of how you think about the problem.

[Adriana] I'd like to end on sort of a forward-looking kind of note. What do you see the future holding for the public service in terms of innovation for GovTech as well?

[Dominic] For me, I think the innovation cycle is going to be more and more compressed moving forward. With the introduction of AI, we are able to do things a lot faster. A lot of things can actually get automated. At the same time, it's going to empower a lot of business users to be able to innovate and iterate on their own. So people can then now start to be able to experiment, even with very little resources at the beginning. So the way I think about how it will start to be different for government as well as for GovTech is that we need to then

be more determined about pushing this culture forward. Otherwise, as an organisation, we wouldn't be so relevant.

[Hui Hua] I can say that all the Singaporeans or citizens are actually our users. So I would say there are a lot of opportunities for us to explore. I think that's the part that as public officers, we have to challenge ourselves.

[Jeremy] Personally, for me, in GovTech, I think one of the things about innovation is really whether or not we can empower GovTechies to solve problems on their own. We are citizens first, public officers second, as well as GovTechies. And so to not just see a problem in Singapore and be like, oh yeah, sian, this is a problem. But really, how do we come up with something to fix it? I think those are the things that really makes it powerful to be in GovTech and also as a public officer.

[Adriana] But I think as a non-techie GovTechie, what you were talking about, about AI giving you just a wider tool set, so I don't have a hammer. I have more at my disposal now, right? As well as this idea that I'm under certain constraints, etc. I think this really, to me, what has illuminated is that I can be practising this mindset so much more in my own day-to-day, right?

And sadly, we've come to the end of today's episode. If you're interested to find out more about anything that we've discussed, head on over to go.gov.sg/GovTechDecoded.

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We'll leave all those links in the description. I'm Adriana, and I'll 'cache' (catch) you at the next GovTech Decoded. Bye!

(Outro music)