

**GOVTECH DECODED**  
**EPISODE 5**  
**SECRETS TO MASTERING GENAI FROM A PROMPT QUEEN**

**Host: Alicia Lee**

**Guests: Lim Hock Chuan, Kenneth Ong, and Nicole Lee**

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**[Nicole]** I can't code, I can't build front-end or back-end, I only know The Weeknd.

*(Intro music)*

**[Alicia]** Hi everyone and welcome to GovTech Decoded where we decode technical speak. In this series, we will discuss hot tech topics and how the Singapore government leverages technologies to build tech for public good. I'm GovTechie Alicia and I'm your host for today. Today, we have three AI experts joining us to discuss more about the AI wave and how the Singapore government is leveraging AI to build the next generation of digital government. Let's have them introduce themselves.

**[Kenneth]** Hello, I'm Kenneth and I lead the Empower programme in GovTech. I've been working in the public and social sector for about 15 years, mainly in system and software development and building online platforms.

**[Nicole]** Hi, I'm Nicole. I'm also part of the Empower team. I began my career as a journalist and editor, roles I held for several years before transitioning to the position of engagement manager five years ago, a move that I've never regretted. So currently, I oversee the Data and AI Tournament, DAT for short, which is a tournament focused on data visualisation and prompt engineering for public officers.

**[Hock Chuan]** And I'm Hock Chuan. Similar to Nicole, I didn't always work in the data and AI field. I was an engineer in a semiconductor company and was deployed to the headquarters in Silicon Valley. I joined GovTech in 2019 and now I lead the launch initiative in GovTech.

**[Alicia]** So welcome guys to GovTech Decoded. We have a very exciting topic this episode, it has been the tech trend of 2024. I'm sure most of you have guessed it already when our guests introduced themselves...It's data and AI.

To kick things off, data and AI is such a dynamic field. Can you give us a snapshot of how the domain has evolved over the past few years?

**[Hock Chuan]** Absolutely. Over the last few years, we've seen AI make tremendous strides, going from advanced algorithms in research labs to large multimodal models that are within reach to everyone in society today. And this trend is not just limited to specific industries. You can see AI being adopted in almost every sector today, across sectors like defence, education, environment, healthcare, and finance.

**[Nicole]** That's right, Kenneth. So even when we look at our everyday lives, the influence of AI is unmistakable. So from the moment you wake up, you might browse

social media, which uses AI algorithms to analyse your interactions and deliver personalised content. On your way to work, the public transport system employs data analytics and AI prediction models to optimise routes and schedules. Upon arriving at work, you might use an AI tool, such as ChatGPT, to efficiently reply to your emails.

**[Alica]** Okay, so we've heard a bit about AI. And all this is like normal AI, right? It's been there for a while. Then there's now this new thing called GenAI. So maybe, guys, you can explain what's the difference between AI and GenAI?

**[Kenneth]** Sure. GenAI is actually short form for generative AI, which actually refers to a subfamily of AI that can be used to create new content like text, images, audio, video, and even code.

**[Hock Chuan]** Yeah, GenAI is probably the most popular kind of AI today. But we have been working on different types of AI, such as machine learning, computer vision, reinforcement learning, and neural networks.

**[Kenneth]** So ChatGPT is an example of generative AI. So DALL-E is also an example of text-to-image version of generative AI as well. These are basic examples. Examples of more complex GenAI is optimisation of supply chain, management, augmented medical imaging, or automated software testing. This AI wave is unlike the data science wave in the past. This time, because of the wide array of GenAI models and products as well, and the ease of the adoption and usage is more widespread.

**[Alica]** I've tried a lot of things now. I tried ChatGPT, DALL-E, Gamma, Copilot to make like presentations. Sometimes you have an outline, you just dump that thing in. Like within a minute, it gives you like the whole presentation already. You just tweak from there. It saves all your time in creating the whole thing in the first place.

**[Nicole]** Yeah, it is true. So like GenAI has transformed our work processes, like even within the government too.

To be honest, I would say that we haven't fully maximised it yet. I think this is an area that I feel really deeply passionate about, and I know Kenneth shares this passion too, which is the skill of crafting a good prompt.

So tell me what do you mean when you say crafting a good prompt? So a prompt refers to the input being fed into an AI model. So prompt engineering simply put is to design or write prompts to get accurate or relevant response from large language models. Just like how better ingredients help a chef cook a better dish, writing good prompts actually helps the user generate better output, whether it's writing an email or programme.

**[Hock Chuan]** Yeah, a pet peeve that I have is when people tell me that GenAI is lousy or doesn't work well for them. I usually tell them they're not using the right prompt.

**[Alica]** So Nicole, I know you have a lot of first-hand experience regarding prompting and prompt engineering. Would you like to share with us?

**[Nicole]** Yes, of course. To me, prompt engineering is an important skill and one of the most inclusive tech skills out there. So like I shared, before I joined GovTech I was a journalist for about three years. So I wrote for local publications like The Smart Local, Weekender Singapore. So I don't have any tech background. I can't code, I can't build front-end or back-end, I only know the Weeknd.

But with prompt engineering, I can achieve things that used to be beyond me. So for example, if I see an application that I like, I can just screen grab it, and by very clear prompting I can bring it to Claude Artifact and recreate it without writing a single line of code. So this is a skill that opens up a kaleidoscope of possibilities across different AI platforms. But I guess to me, I do have a bit of advantage because my past experience as a journalist was very helpful. So as a journalist, I learned how to craft clear, effective prompts by asking the right questions, building context, and tailoring messages, skills that apply directly to working with AI. At the core of it, prompt engineering is less about engineering and more about crafting clear, concise prompts in natural language.

**[Hock Chuan]** And by the way, Nicole represented Singapore at the inaugural Global Prompt Engineering Competition, and she was the only Singaporean to be flown in for the finals.

**[Alica]** I know, right? I saw it on LinkedIn. I was like, go, Nicole, go!

**[Nicole]** Thanks, thanks. So the prize money for the competition was \$1 million AED. I didn't win, that's why I'm still here. But it's okay because I finished sixth out of many talented competitors, so it was still a great honour and an incredible experience.

**[Alica]** Yay! Amazing. So on that note, let's put your prompt skills to the test and have you, our prompt queen, be the judge.

*(Transition music)*

**[Nicole]** So we are here today to help our marketing team do their work. You are going to be a marketing manager tasked to promote today's GovTech Decoded episode on prompt engineering. So you have to conceptualise a marketing plan, comprising two posts, leveraging different social media channels. So if you're ready, your time will start now.

**[Alica]** Okay, Nicole, please judge.

**[Nicole]** Okay, so Hock Chuan over here, if you guys can see the screen, he's using the COSTAR framework. Conceptualise a marketing plan. Style, tone, audience response. Actually, the fact that he can type in two minutes is quite incredible. Prompt engineering is really a bit of typing speed. Okay, so if we can see the screen, the LLM already begins to strategise how it will approach it. So it took all of the key headers that he outlined and reiterated it, polished it up nicely, and then chose a platform. The marketing strategy is so polished, it's so finished. So the key message

is right here. The exact slogan for our GovTech Decoded is right here. Very well done. You see, adults have no time for your nonsense, so you must start with the key message, which is optimise your productivity. It's very clear that there are different approaches for the students and the professionals, and with his one very extensive prompt, it built everything out really, really beautifully. So I think given more time, he could have executed this and come up with the exact copywriting for each of this. Overall impression, I think it looks really, really polished. Maybe we'll see if our marketing colleagues will eventually take this and do it.

So let's look at Kenneth's prompt and output. So I'm now reviewing my director, Kenneth's output, with the intention that I want to go to work tomorrow safe, or get a promotion. Oh, wow, shoot. Okay, so well done. Okay, let's see. Marketing manager, okay, so he's built context on who he is, come up with a marketing plan, two posts, he's very quickly outlined the target audience, which is great. So if you're using the COSTAR method, this is actually A. So he has identified students as well as the working population. He's also included key information, which we can file under context if we are using the COSTAR framework. So he's listed himself, Hock Chuan, and myself, from GovTech. The theme of the episode, he's also outlined it very, very well. His rules are that you have to recommend the social media channel. He's not going to think, the LLM is going to think for him. Okay, then the next one, working population, looking to use prompt engineering for productivity. Oh, of course they chose LinkedIn, but it chose live video, I've never actually watched a LinkedIn video, I don't know if this is the correct platform, but all of the information is really, really accurate. And it's short, so it won't lose people's attention that much.

If I had to choose between the two, I would have to go with Hock Chuan.

**[Hock Chuan]** Thank you, thank you, thank you.

**[Nicole]** And that was done in three minutes.

Congrats, Hock Chuan. So we have our newly crowned prompt king. Let's go back to our discussions.

*(Transition music)*

**[Alica]** So we talked about the value of prompt engineering. Who will benefit from mastering prompt engineering though?

**[Nicole]** Anyone, like literally anyone can benefit from prompt engineering. So we talk about prompt engineering as if it's purely a technical skill, but really it's a mix of art and science and it's not restricted to just engineers. So for example, I like to build custom GPTs, so I build a custom GPT that understands my portfolio end to end. When I need reports based on the latest data, it generates them seamlessly. So I can even ask it to critique my current strategies and suggest ways to improve and it does. So it's like having a consultant who never ever bills me. So without any coding experience, purely built on prompt engineering, all of this was one GPT.

**[Alica]** Wow, that's really cool. I also use like ChatGPT and Gemini also, but my prompts sometimes are not really that great. I hear that GovTech is also doing like

prompt engineering competitions and training people in prompt engineering. So maybe y'all can share a bit about that.

**[Kenneth]** I'm glad you brought it up. Nicole and I are from the Empower team and our focus is to empower public officers with the knowledge and skills to adopt AI for their work. One of the many initiatives that we run is the Data & AI Tournament, DAT for short. We've been running DAT for the past seven years since 2018, and last year we introduced a prompt engineering component.

**[Hock Chuan]** Yeah, I was there last year and the prompt engineering competition was very exciting to witness. The competitors are tackling the task live on stage and it was fascinating to observe their thought process and see how they approach each of the challenges in their own way. And the real-time nature of the competition added an extra layer of intensity, as well as showcase a diverse strategy employed in prompt engineering. Yeah, it was super nerve-wracking organising it because there were so many things that made me lose sleep, that could have gone wrong.

**[Nicole]** Yeah, and hosting it was so challenging also. So because of the nature of the live prompting, it was really difficult to predict what would happen next. So an anecdote, last year on stage for the final task, all three finalists and all three of their screens broke down on stage. So the board couldn't generate anything on time. I also wanted to break down, but I couldn't. I had to hold it together and finish it through. So it went very well, and it was very exciting and it really sent home a very good message, which is when AI fails, human ingenuity will step up and save the day.

So I also thought it was very interesting because for the grand finale, we had three very different finalists. So we had an economist, an engagement manager and an executive engineer. So they each brought their own prompting approach to the task which had to be solved live in front of our esteemed judges panel and over 500 public service officers.

**[Alica]** So live as in like they write the prompts on the spot immediately, like you show them this is the challenge and they prompt.

**[Nicole]** Yes, exactly. So this would be their podium and then the screen will be behind them. So we could see everything they're doing in real time. So the audience could see everything. They had to complete tasks like text generation, social media, copywriting, data set analysis, custom GPT building and pitch all in a matter of minutes.

**[Hock Chuan]** Yeah, and the most exciting part of Prompt Royale, right, was watching how the participants from different fields and different roles that you mentioned earlier approach this task in their own unique way. So for example, one of the finalists, Sheila Teo, even instructed the AI to take a deep breath and think step by step, a method which she learned from a paper that the director shared. And this helps the AI to slow down, produce more thoughtful results and it was fascinating to see how they tailor each prompt based on their real-world experiences and expertise. And during the custom GPT building task, two finalists added on essential safeguards, and that's important because the third finalist chatbot was Jail Broken

live on stage, and this actually sparked a very important conversation about security in the AI system. So even simple instructions such as do not answer any questions out of your scope proved to be valuable instructions.

**[Nicole]** So we started with just 400 participants in our pilot run in 2023 and saw over a thousand participants in 2024. Since then, organisers from Egypt, from Dubai, having read the Medium article on how to run your own Prompt Royale have successfully managed to organise their own versions. So we're expecting even bigger momentum in the year ahead.

**[Kenneth]** Such initiatives actually expose a lot of our officers to the latest tech. It helps them to develop awareness and interests as well as their capabilities, and we try to do it in a fun way, of course.

**[Alica]** Yeah, have fun at work and you learn more.

**[Hock Chuan]** Yeah, and these initiatives are not just for GovTech staff, but for the 152,000 employees across the public service. So it's not an easy feat.

**[Alica]** Yeah, I struggle to teach my two kids at home. So I can't imagine just teaching everybody across public service. Crazy, wow.

Okay, so before we wrap up this episode, one last question. Any tips for our audience who are looking to improve their AI game?

**[Kenneth]** I think something really simple is to really start with the COSTAR framework that we've developed and shared out publicly as well. COSTAR actually stands for Context, Objective, Style, Tone, Audience and Response. So these are like the six guiding points. So for example, style is really how do you want the output from the LLM to be written in? Tone, for example, then is how do you want the sentiment to be in the output, whether is it firm or is it friendly, fun, casual. And response really means what sort of format do you want it to be. Is it in a form of a letter, is it form of maybe in a JSON format, you know, stuff like that.

**[Alica]** Okay, cool. So COSTAR, got it memorised already, okay. So I'll try to use that going forward.

**[Kenneth]** Yes, make it your best friend.

**[Alica]** Yeah, like my COSTAR. So I'm the star, it's my COSTAR, right?

**[Kenneth]** Make COSTAR, make the LLM your COSTAR.

**[Alicia]** Can, I will do that. Okay, so today we got to understand GenAI better, the importance of crafting relevant prompts and how to write a good prompt. Any closing words for the audience?

**[Nicole]** Yes, okay. So I think data and AI has and will continue to change the way we work. Prompt engineering is for anyone, really. So don't be scared and try out today if you haven't.

**[Alicia]** Okay, so thanks Hock Chuan, Nicole and Kenneth for your time today. We've come to the end of this episode, but stay tuned for the next one as we delve deeper into how GovTech is fostering a culture of innovation across the Singapore government. If you're keen to find out more about what we have discussed, you can check out our site at <https://go.gov.sg/GovtechDecoded>. And if you enjoyed this episode, do support us by sharing it with others and on social media.

**[Kenneth]** You can also connect with us on our LinkedIn pages and follow GovTech on our social media platforms at <https://go.gov.sg/ConnectWithGovtech>. We will leave the links in the description.

**[Alicia]** I'm Alicia and we'll catch you in the next GovTech Decoded!

*(Outro music)*