Jane Wong explains how she uncovers hidden app spy tools that tech giants like Facebook want to keep secret

- The UMass-Dartmouth undergrad wants to understand what tech companies are doing with user data

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Jane Manchun Wong is an introvert who fades into a crowd. But in the geeky world of app reverse-engineering (yes, there's such a thing), the 23-year-old Hongkonger is a rock star.

The computer science major at University of Massachusetts Dartmouth has made a name for herself in tech circles by uncovering hidden app features that the likes of Facebook, Instagram and Snapchat want to keep under wraps.

Now on a gap year back home, we met at the Strokes, an indoor mini-golf club in Hong Kong's Causeway Bay shopping district. I had hoped that doing an activity together would help break the ice, and because watching her spend hours analysing source code did not seem particularly exciting. Besides, I was good at mini-golf.

We teed off at the 11th hole of the 18-hole course, located in a section that for reasons unknown is designed to look like a swimming pool. She manages to sink the ball on her sixth attempt and lets out a victorious "Yes!"

[The WeChat story: how Tencent's super-app changed China](#)

"This is fun, figuring out where I should aim when I hit the ball," she said. "It's similar to when I'm trying to pick up my workflow when a new app update is released, you have to try and get the

hang of it but once you do, it's really fun."

Jane Manchun Wong and Post reporter Zen Soo tee off at the Strokes mini-golf club. Photo: Felix Wong

Wong was the first to discover that Facebook Messenger was testing an "unsend message" option and that Instagram was working on allowing users to geofence their posts and stories, limiting content visibility to specific countries and regions.

Many tech publications follow her Twitter posts and some have offered to pay her if she would reverse-engineer apps for them exclusively. However, Wong always rejects such offers.

"I believe information like this should be free and accessible to all, so I'd rather just post about it on Twitter," she said. "I'm not doing it for the money."
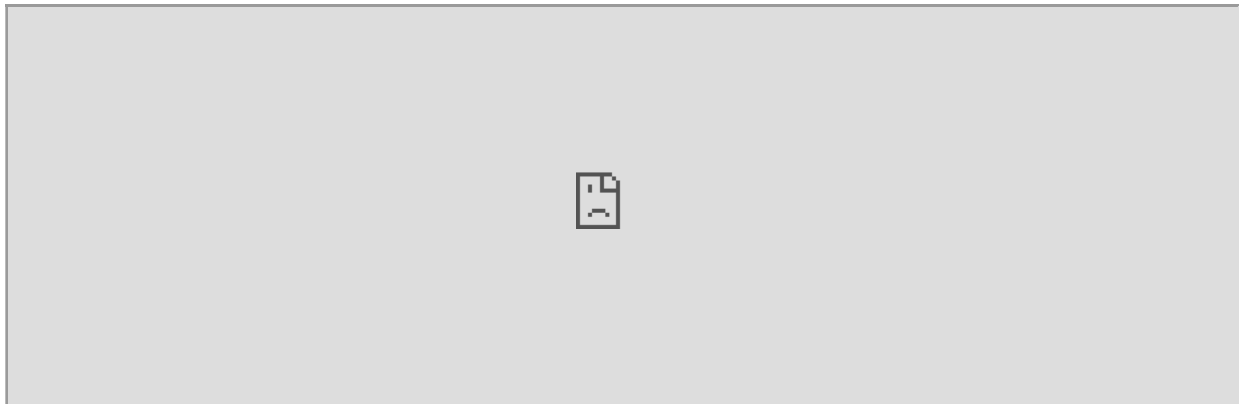
What she is trying to do is peel back the layers of opacity surrounding what technology companies do with our data.

Once, she discovered that users who granted permissions for Facebook's Android to access location and phone data were also allowing the app to scan and send data like nearby cell tower information and available Wi-fi networks in the vicinity of its servers.

Here's just some of the apps Chinese can use to fend off boredom

Such information could potentially be used to determine a more precise location of where users live, possibly even who their neighbours are, Wong said.

"These apps are on my phone, but at the end of the day I want to know exactly what the technology is doing on my device, how they are using it to collect data beyond the vague 'bug

fixes and improvements' app update notes," she said. "Not truly knowing what apps can do on your phone is like having an unknown, sealed box sitting in your home, and you have no idea what it does or contains."

Wong was the first to discover that Facebook Messenger was testing an "unsend message" option. Photo: Reuters

Wong recalls developing an interest in computers at a young age. At the age of seven, her parents allowed her to go online but strictly monitored her usage, implementing parental controls on the internet Explorer web browser out of fear that she might end up on harmful internet sites.

Undeterred, Wong circumvented this by installing the Firefox browser, which prompted her parents to install a password on the Windows operating system. So she went to the library, borrowed a book on the Linux operating system that came with an installation CD-ROM and figured out how to install the open-source system to replace Windows.

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"They could not stop me, I was so determined," she chuckled. "They even tried to put a password on the computer but I reset the entire motherboard to get around it and eventually they gave up and let me tinker on the computer, albeit without internet access."

Today, whenever US technology companies release a new updates, Wong hunkers down and spends anywhere from 30 minutes to several hours combing through code and figuring out what's new.

Wong has also attempted to reverse-engineer Chinese apps such as Musical.ly (now merged with TikTok), but said that she did not find anything that was of particular interest to her.

Wong has also attempted to reverse-engineer Chinese apps. Photo: EPA

She has yet to reverse engineer Tencent's WeChat, with more than 1 billion monthly active users, because she is uncomfortable with the mandatory identity verification and censorship on the app, she said.

Being Asian and female means that Wong is still a relative minority in the generally male-dominated tech scene. Her ethnicity has on occasion made her the target of personal attacks, and sometimes naysayers cast doubt over whether she works independently.

"Sometimes, there are people in the community who doubt my work, and wonder if I have a team that helps me with reverse-engineering apps," Wong said. "People need to realise that gender does not affect a person's capability in tech, men and women are equally capable."

And in case you were wondering, I won at the mini-golf, though I think she might give me a run for my money the next time we play.
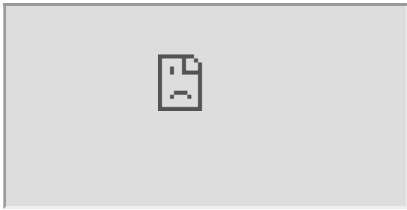
Jane Wong can be followed on Twitter at @wongmjane, where she regularly posts new discoveries.