

Simon Buckingham Shum is a thinker. He likes reading books that are "critical about technology" and was once a university darts champion who threw more than a few 180s (the maximum per round). But Buckingham Shum says it was his first degree in psychology (in 1987), that really inspired his research into how people learn.

Three degrees and nearly 30 years later, and Buckingham Shum is working to change the way we learn.

The learning analytics expert, and UK ex-pat is now the Director of UTS's Connected Intelligence Centre (CIC). It's a role that sees Buckingham Shum work across faculties to help students and educators interpret data.

"CIC is full of people who are really interested in how we can analyse data, visualise it in useful ways, and the ethics that surround that kind of data – so if I have a lot of data about a student, then who should see it, and what kinds of decisions might I take on the basis of that?"

Buckingham Shum says that it's at the intersection of problem solving, creativity and computers "that the interesting stuff happens".

Currently, CIC are conducting trials that could change the UTS student experience: from using Kinect for Xbox and microphones to track how nurses work together around a patient bed (it's called 'collaboration analytics'), to a web app called CLARA that has given students deep insights into how they approach their learning ('dispositional analytics').

"There's a lot of innovation that goes on in this place," says Buckingham Shum. "But we're always trying to create practical tools for students and staff."

Shum is particularly interested in how students reflect.

"Often we don't get taught how to write about what we don't understand, or about our feelings, like how an internship is going, or even in the first person," says Buckingham Shum. "So we're very interested in that kind of writing too teaching students how to write in a deeply reflective way, rather than just a superficial way."

In order to track how well students are reflecting, Shum and his team are developing "writing analytics" software that can give students instant feedback. "The idea is that 24/7 you could paste in the text you're working on and get feedback as to how it could be improved. So that's an example of using artificial intelligence to trigger deeper reflection. There's no way that you're going to get your human tutor to give you feedback at 1am! So this is a niche where machines seem to have a role to play."

Behind all of the futuristic technology, though, Buckingham Shum says there's a simple goal.

"You only get better when you've got good feedback. We want to give you feedback in a way that's motivating. If it's going to work, it's going to give you better feedback, and give you a better picture of what you're doing and what you can work on next."

Lucy Tassell

Bachelor of Communication (Journalism) Photographer: Jamie Williams

