



Dr Gary Stager is a sought-after guest speaker at education conferences.

# Technology is not the enemy

FOUNDER AND CEO OF CONSTRUCTING MODERN KNOWLEDGE DR GARY STAGER RECENTLY FLEW IN FROM THE U.S. AS A KEYNOTE SPEAKER AT EDUTECH 2023. HE SAT DOWN WITH *EDUCATION MATTERS* TO DISCUSS WHERE EDUCATION IS HEADED.

US-based Dr Gary Stager describes himself, first and foremost, as a teacher educator, shunning terms like 'genius' or 'innovator' – that's for history to decide, he says.

"I've been teaching teachers for 41 years, trying to help them make sense of a world in which there are wondrous opportunities to not just teach with greater efficiency or comprehension but to seize the opportunity to learn and do in ways that were unimaginable just a couple of years ago," he says.

No stranger to Australia, earlier in his career Stager earned a PhD in science and mathematics education from the University of Melbourne; his research was based on creating a multi-age constructionist alternative learning environment in a prison for teenagers. He also helped the first schools in the world implement 1:1 personal computing in 1990.

Now a published author and sought-after guest speaker, his ambitions have not dimmed in the intervening years.

"My goal is to create schools in which kids wake up in the middle of the night with a burning desire to get back to class to work on something that matters to them, and where their teachers wake up every morning and ask themselves, how do I make this the best seven hours of a kid's life?," he says.

It's this passion for learning, and disdain for the notion of innovation, that Stager shares in his presentation at EduTECH.

"I think the focus on innovation, particularly in education, has perverse incentives and misguided direction. I see a lot of empty rhetoric, as opposed to actual progress. There are a million and one things that we can be doing practically – even morally – in classrooms this minute, that we should be doing, rather than trying to guess what the future holds," Stager says.

Instead, he says, if kids are engaged in meaningful projects, if they develop computational fluency, if they participate actively in a democratic system, then that's the best

preparation for an uncertain future.

Rather than self-grandising about the future, Stager points to the past. "We should recognise that we stand on the shoulders of giants, that we've learned from the past – from our triumphs and our successes," he says.

"As one of my heroes, the great civil rights activist, educator and author Jonathan Kozol reminds us, 'You're only seven once'. We must gain a sense of urgency and respect the culture of childhood."

He continues: "We don't prepare kids for challenges that we can't even yet imagine when we concern ourselves with predicting the future as opposed to doing the right thing today."

## ADVOCATING FOR A HANDS-ON APPROACH

For Stager, the notion of tech-bans or bans on devices in schools is a farce. For him, the notion that the teacher should be the centre of attention at all times, or that an arbitrary assessment or curriculum agency is more important than the



personal development of a child, is problematic.

"We need to be able to hold two thoughts in our heads simultaneously. I think all kids should have access to computers all the time. Kids should develop agency and fluency with those machines so that they can have power and control over an increasingly complex and technologically sophisticated world. Some kids may then choose computer science as their project," he says.

In Stager's view, having natural hands-on experiences are consistent with deep, rich project-based computing experiences that can enhance humanity and amplify our potential.

"If your stance is that kids have to pay attention to an adult, whose expertise may or may not be questionable, for inordinate periods of time in order to perform on an arbitrary examination, or write a paper on a topic no one could possibly care about, then you are not preparing anyone for any kind of meaningful future," he says.

By his own admission, Stager is "not the least bit interested in what a lot of people are terribly interested in", as he puts it – and assessment is one of those things.

"Assessment is judgment and inherent in that is a desire to rank and sort, rather than to uplift and empower, and that's problematic. We should be asking, 'What can a student do?' – and the way we know what they can do is by knowing the student, by spending time with them, by collaborating with them, by talking with them, by having a more collegial relationship and breaking down the hierarchy," he says.

"We shouldn't be quibbling and quarrelling and wringing our hands about how AI is going to destroy the drudgery of schooling. We should be figuring out a way to gain benefit from being



Dr Stager believes schools have an obligation to introduce children to things they don't yet know they love

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co-located in the same space at the same time, whether it's online or face to face."

Following learning to program computers in a public middle school in New Jersey in the mid-1970s, Stager has spent four decades helping school educators around the world embrace computational technology and the possibilities technology in education can provide.

"Schools should be in a position of preparing kids to be in charge, as opposed to being mere consumers or victims of a force that they neither understand or control," he says.

#### USING DATA FOR PREDICTIVE PURPOSES

Maybe unsurprisingly, Stager does not believe data has any real value in improving the delivery of education.

"It will always be wrong, and will never inform you as much as a teacher truly knowing a child will."

To illustrate his point, he shares a personal anecdote: "During the pandemic, I started playing tennis as a way to get fit. It gave me something to do because I wasn't traveling and could take advantage of belonging to a tennis club," he says.

Stager's tennis coach invited him to play with a talented 10-year-old he was also coaching.

"It was only a matter of days before the 10-year-old was humiliating me on the tennis court. But during one session, he was complaining of a headache. He was agitated and wasn't making a lot of progress. When we took a break, I asked him, 'If you could run the lesson, what would you like to work on? And he said, getting better'. That was one clue to me that he had no cognitive investment in what he was doing," Stager recalls.

"If you're trying to get better at something, you need ownership. Learning how to learn is an important part of getting better. When the play resumed, I made a subtle gesture to the tennis coach to stop talking. Once he stopped, the kid started smiling. His tennis playing got better. He was actually thinking about playing tennis, and about his shot and what he needed to be doing more or less of. Then he spontaneously announced that his

headache had gone away. There is no way in hell that any bureaucratic bot would have been able to diagnose and improve that learning environment as quickly as I did, by just making a gesture to the coach to stop talking."

Australia's school system, he adds, doesn't have a great track record of spending millions of dollars on programs that will transform data into outcomes.

"It's arrogant to suggest that a program can replace the wisdom of adults in proximity to children they care about," he says.

#### CELEBRATING THE CHARLIE ROSEN'S AND CASEY NEISTAT'S OF THE WORLD

Founded by Stager, Constructing Modern Knowledge is a minds-on institute for educators committed to creativity, collaboration, and computing. Now in its 15th year, it creates an environment where teachers spend four days uninterrupted, working on personally meaningful projects. Every year, Stager invites a guest speaker – someone who is an expert in something that you can't take a class in. This year's guest was American musician and composer Charlie Rosen.

"Charlie Rosen is 32. He's been nominated for a Tony Award three consecutive years for best orchestrator of a Broadway musical. He plays 70 musical instruments. He has two Tonys and a Grammy, but that's not the most interesting part," Stager says.

"The interesting part for me is that one of his hobbies, his side hustle, is he runs something called the 8-Bit Big Band, which performs arrangements of video game music with a 60-piece orchestra to concert halls full of fanatic listeners."

Stager says Rosen is somebody with remarkable musical talent and gifts at the intersection of popular culture.

"We had Casey Neistat, the YouTube filmmaker, speak at Constructing Modern Knowledge a dozen years ago. He was a guy who dropped out of high school and was told he wasn't good at anything. He's made millions of dollars making daily vlogs that have inspired an entire generation of storytellers," Stager says.

"I think it's important for educators to recognise that that sort of light exists in the world and that there's some kid who's not doing well on NAPLAN – or as I like to call it, napalm – who is the next Charlie Rosen or Casey Neistat who can potentially change the world and make it a better place for the rest of us."

To learn more about Dr Gary Stager, visit <http://professorgarystager.com/oz> and <http://constructingmodernknowledge.com>. **EM**



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