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Meet the teacher whose students now run tech companies worth billions

Stephanie Schwarz is perhaps one of the most successful computing teachers Australia has ever produced – certainly if the valuation of ASX companies created by her former students were the benchmark.

James Eyers

Senior Reporter

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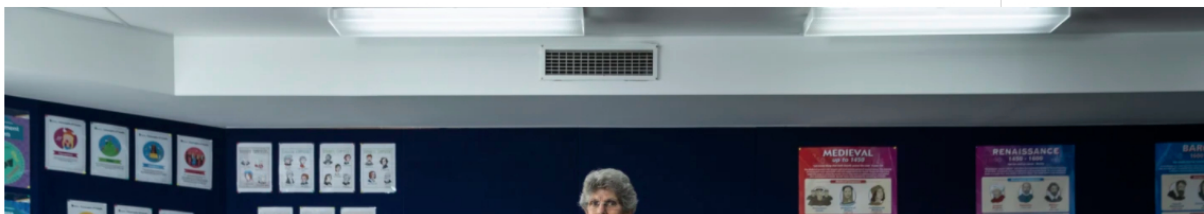


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Stephanie Schwarz was born into a pioneering teaching family; her late father, Harold Nagley, was the foundation headmaster of Moriah College, a Jewish school in Sydney's eastern suburbs.

She would ultimately become one of Moriah's most admired teachers, and perhaps one of the most successful computing teachers Australia has ever produced – certainly if the valuation of ASX companies created by her former students were the benchmark.

"I knew that if I could give the students enough basic underlying concepts, the sky would be the limit for them, as it had been for me," Schwarz says. Her route to the classroom was circuitous, however. Before she taught, she had to learn.





Stephanie Schwarz at Moriah War Memorial College in Queens Park. Louie Douvis

Armed with a first-class honours degree in chemistry, Schwarz joined IBM in 1969, the same year its technology helped to land the first man on the moon. It was the dawn of the age of networked computers and, as a systems engineer, she helped companies like ice-cream maker Streets roll out the first communication systems between factories and head office.

She learnt the programming language PL/I (a mix of the wordy COBOL and the scientific Fortran). “People were at the forefront of learning what was possible, and we were designing from the bottom up.”

Schwarz joined IBM because it was the only company at the UNSW careers fair that agreed to pay her the same as a man. But IBM wasn’t the supporter of equal opportunity she’d first thought. Falling pregnant after a happy seven years at big blue, she asked to continue part-time – but was told this was not possible.

So Schwarz left and took a job teaching programming at TAFE for 12 years as her three children grew up. When her eldest son Simon was heading to Moriah in Year 7, she responded to an advertisement for a teacher for the new subject of computing studies. She got the job and joined in 1989. Nagley died of prostate cancer the same year.

It had been 28 years since Nagley had arrived with his family in Melbourne as an immigrant from England. He was vice-principal at Mount Scopus Memorial College for four years before moving to Sydney in 1965. With a dominating personality and clarity of vision, Nagley set out to build Moriah College into a school with the vibrancy of Mount Scopus.

Schwarz and her siblings (her sister is the head of a children’s cancer institute and her brother is a professor of biochemistry) learned from Nagley the same philosophy of life that he offered to his students: you can’t know where you are going if you don’t know where you’ve come from; and, you can achieve whatever you want if you put your mind to it.

Joining Moriah, she built on her father's legacy. In a classroom with 25 Apple IIe PCs using 5¼ inch floppy disks, Schwarz took her first computing studies class to the HSC in 1991. Three of her students made the top 10 in NSW. But she found that first year a culture shock.

"If I could have gotten out, I would have," she says. "It nearly drowned me. It was trial by fire. I came equipped with so many skills from IBM, none of which were relevant in a school – none. I had to get my head around so many unknowns."

Yet she caught the bug. Teaching was strangely exciting as the kids lapped up the lessons. In the classroom, her mantra was learning by doing. Programming can be powerful because students know right away if what they're doing is right or not. "There is instant feedback. If you are good at it, the affirmation is constant." A favourite lesson was playing Lemonade Stand, an Apple II program teaching business foundations.



Afterpay co-founder Nicholas Molnar, left, and Zip co-founder Larry Diamond.

Now some of Schwarz's former students are building Australia's fintech industry and exporting it to the world. Afterpay co-founder Nick Molnar, Zip co-founder Larry Diamond and QuadPay co-founders Brad Lindenberg and Adam Ezra all sat in Schwarz's classroom. The combined value on the Australian Securities Exchange of the companies they have created is \$48 billion.

Schwarz says she is not surprised at the boys' success given conversations in class. The focus was on problem-solving and breaking things down into steps. Her message was don't think about the endpoint, but the inputs: build what you have learnt and you will see it develop in front of your eyes. Her learning from IBM was actually very relevant.

"Technology is not an end of itself. You have to understand the basic building blocks – which is what I learnt from IBM. If you understand that, you can do anything with it."

Larry Diamond remembers Schwarz as being strict, "but that's because she was an evangelist and wanted to make sure you weren't taking for granted the privilege you had". He recalls her mantra as being "there is no substitution for hard work". "She instilled a deep sense of the power of technology and the ability to invent any future."

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Schwarz, 72, retired from the classroom in 2017; the previous year, she received an Order of Australia for services to IT education. She continues to work with the NSW Education Standards Authority on the computing syllabus and mentoring Moriah teachers.

Reflecting, she remembers teaching as “like going on stage”. “You knew when you had the students, I just loved that. I miss it terribly, but that is how it goes.

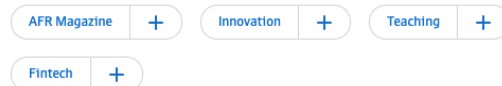
“I never knew this was going to be my career. But looking back, I could not have picked anything that would have worked for me better. I have been blessed in what I have done.”

The March issue of [AFR Magazine](#), including the **Machine** supplement, is out on Friday, February 26 inside [The Australian Financial Review](#). Follow AFR Mag on [Twitter](#) and [Instagram](#).



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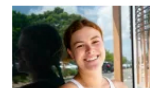
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