

Folks, forget about the old view of maths

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The “old and dusty” view of maths as a school subject among many of today’s parents has become the biggest stumbling block to the development of an advanced mathematics industry in Australia, experts say.

With a prediction that more than 75 per cent of jobs will require STEM skills in the next decade, industry insiders say Australia will be forced to import experts because too few students at high school are showing interest in the crucial areas needed to develop our boutique expertise.

And mathematics is suffering the most. The problem: parents.

According to Joe Forbes, chief executive of commercial mathematics company Biarri and a member of the advisory committee for the Australian Mathematics Sciences Institute, the subject still has an “image problem”.

“Unfortunately, many people, and it’s often parents, still have this old and dusty idea of mathematics as something that doesn’t really have a career path outside of academia,” he said.

“And, if it does, they think it’s in actuary work or banking or at the Bureau of Statistics.

“While those jobs still exist, mathematics is now used across the board in every industry.”

He said that these days mathematics was not “just about a guy writing formulas” — it was about



SEBASTIAN BOURGES

Biarri chief executive Joe Forbes

writing and developing apps, about coding, software development, about working in teams in environments such as law firms, medical practices and human resources departments.

“Yes, it still can be statistics and writing a formula or programming, but it is also so much more now,” Mr Forbes said.

“The mathematicians we hire have to have broader skills and good communication.

“They need to be tech savvy, have good communication skills, be sociable, be able to live and function in the real, modern world and be able to work in teams with

people, many of whom aren’t mathematicians.”

Mr Forbes is quick to emphasise that modern-day mathematics has no relation at all to the popular television show *The Big Bang Theory*, which he says has not helped improve maths’ image as a career for dynamic, fun and social people.

These days, he says, mathematicians not only need to write, understand and interpret formulas, but also they need to be able to use them, and put those formulas into a form that the rest of the world can understand and use.

“You need a human being, not

a computer, that can write the formula, use the formula, ask the right questions and then translate and present the complex information in a form non-mathematicians understand.”

Mr Forbes said industries that used mathematicians needed to step up, beginning at Year 9 in high school, to illustrate to students and their parents how broad mathematics was and how it was used across traditional professions as well as new ones.

“Maths has an image problem,” he admitted. “And I don’t think it comes from the kids. It’s from the parents.

“Google is full of mathematicians and we need to get a message like that across to the kids as well as their parents.”

He said parents would be more encouraging of their kids doing maths if they realised the extent to which the skill was needed and its future demand.

“We need to change the way industry talks about mathematics,” he said.

“We need industry themselves to stand up and show how mathematicians are crucial to start-up companies and innovation, are needed in marketing and human resource departments and in law firms and even in football teams.

“Football team and professional sports teams need mathematicians as part of their complex sport science programs, which fundamentally are mathematically driven.”