VIRTUAL TEACHER

As a public school learner, **MBANGISO MABASO** never got the opportunity to experiment in a science laboratory. Today he is the founder of Sisanda Tech, and runs a project called Sisanda (formerly known as SI Realities). This is a virtual science laboratory app that uses augmented reality to enhance and make learning science easy, fun and engaging.

How did you get into the tech industry?

I attended public schools in Botshabelo, Free State. I remember the day our science teacher introduced a concept of generating electricity through the movement of magnets and motors. It was so fascinating – and I wanted to go to the science lab to experiment further. Once there, I found the doors were falling off, taps were blocked and there was no apparatus to perform our experiment. Later, this affected my time at university because it was a struggle for me to compete on the same level as students who had been exposed to well-functioning labs at their schools. I studied Electrical Engineering at the Central University of Technology, Bloemfontein campus.

What is your earliest memory related to science/technology?

I was in Grade 7 when my dad purchased our first PC. By Grade 9, I could change CPU ram cards and hard drives to improve the performance of a computer. My younger brother, Tshidiso, and I worked together. It was nice to build rigs at that age.

How and when did Sisanda (SI Realities) start?

Sisanda started in 2017 and was a pivot from my first mobile game EED. After I realised the importance of using games in education, I decided to use the same mechanics to solve the problem of a lack of science lab.

Who is your typical user?

Our typical user is Babalwa (fictional name), who is between the age of 9 and 12. She is curious and always asks why certain things happen the way they do. Babalwa and learners at this age are developing critical and abstract thinking skills. They want to express themselves creatively. That's why Sisanda wants them to "wonder forever". Great innovation comes from those with wild imaginations and it starts at an early age.

I DECIDED TO USE THE SAME MECHANICS TO SOLVE THE PROBLEM OF A LACK OF SCIENCE LAB.
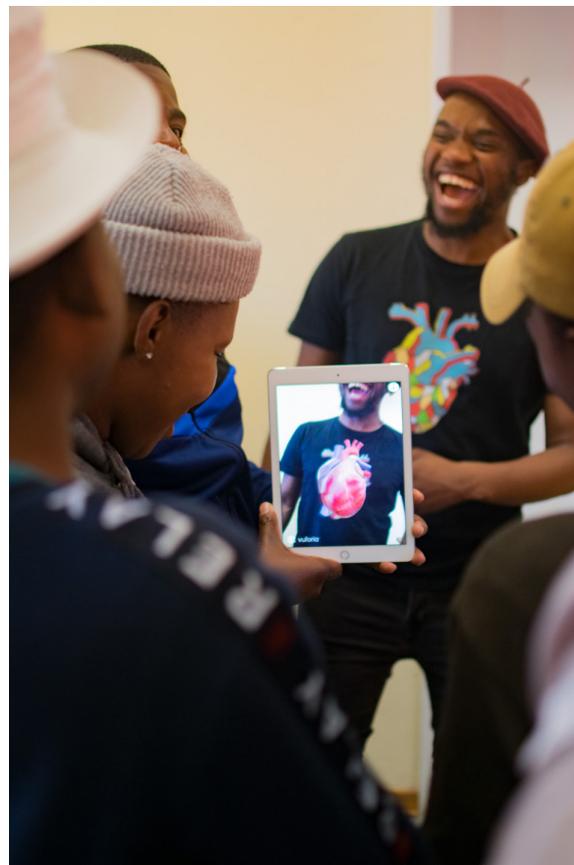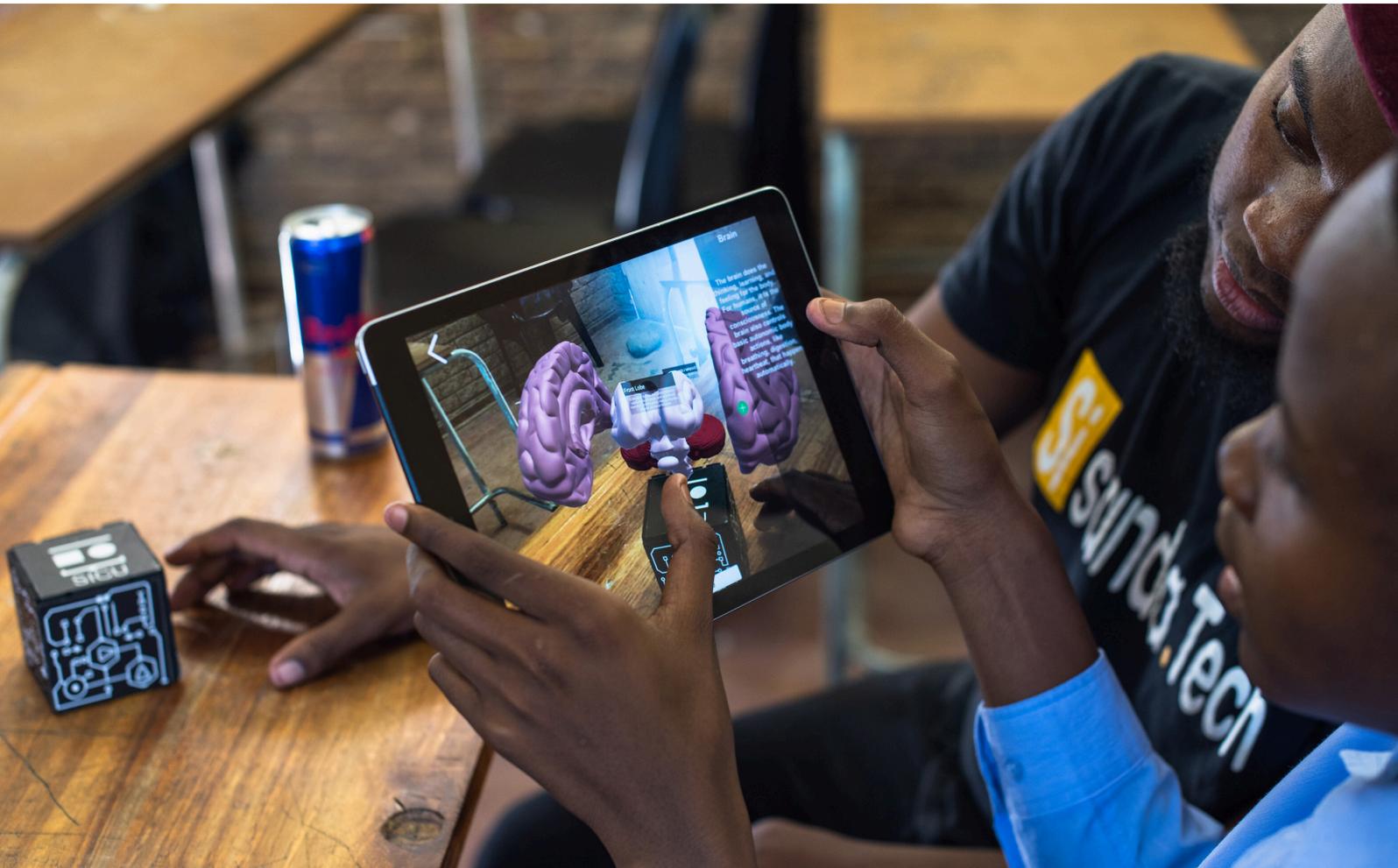
What do you think appeals to them about the app?

Sisanda promotes visual learning in 3D, which keeps them engaged. We use simulation to explain concepts. The learning mascot, Simo, challenges users with questions and lets them explore their curiosity.

Why did you choose to build your business around the education niche?

My three nephews are learners at the same schools I used to attend. I wanted to create a virtual science lab that could benefit the 12 million learners in public schools, 400 000 + in private and the 100 000 who are homeschooled. This offers them an opportunity to explore their curiosity and experiment and play while learning. I chose the education sector because I wanted to solve challenges I encountered as a learner. The goal is to be able to give one million learners a good quality education from our apps and website.

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What is your role or responsibility within the business?

I'm involved in both product development and business development. I still wear many berets to ensure we get our product out the door.

Did you have a mentor or go-to people to guide you in the early days?

Yes, I had a mentor – Mr Lebohang Molikoe – but I'm sure he'd prefer me to call him my "go-to person". When I joined the Red Bull Basement and Red Bull Amaphiko,

The Innovator

I had access to Gavin Weale and Mixo Ngobeni. Alex Ernst, Nelson Sekgota, and Mia van Zyl from Tshimologong Makerspace still nurture us to this day.

If you were re-starting today, with zero money, would you seek funding from lenders and investors, or would you bootstrap your way through?

I love bootstrapping because it's quite challenging and makes you understand the business. We're still bootstrapping our business to reach more learners and deliver value. But at this point, we are seeking funds and grants for social impact. We believe education is a social issue, so we need the backing from investors who measure impact then profits afterwards since we believe we can provide both.

sisanda.com

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1. Mbangiso Mabaso is an enthusiastic entrepreneur.
2. He has created the award-winning Sisanda app – a virtual science laboratory.
3. The goal is to benefit the 12 million learners in public schools, 400 000+ in private and the 100 000 who are homeschooled.