Here's how edtech can motivate students: An interview with cofounder and CEO of Eedi, Ben Caulfield

Ben Caulfield is the cofounder and CEO of Eedi, a free-to-use assessment platform which boosts learning by identifying knowledge gaps, strengths and weaknesses in the classroom. Today we speak with him about the role Eedi plays in personalised instruction, the challenges of bringing AI to a classroom, and what lies ahead for the platform in the sector of education innovation.

The way we learn is constantly evolving. With more and more educational tools and online resources to help students consolidate their knowledge and identify their weaknesses, the world of education innovation is only beginning to tap into demand for individual and accessible educational tools.

Speaking to Maddyness, CEO and cofounder of Eedi, Ben Caulfield admits that using technology to consolidate learning is not new. But Eedi is continuing to carve out a unique space in the edtech sector. The platform locates and feeds

crucial information on why knowledge gaps exist in the classroom in the study of mathematics back to teachers, while also using the same rich database of responses which flag these gaps to drive further innovations in the space.

The free-to-use assessment tool is currently being used by over 17,000 schools across the UK for mathematics lessons, pinpointing precise difficulties and improving learning thanks to a vast database of 3B indicators formed from over 100M responses. High accuracy predictions can then be used by teachers to accelerate learning, while students can also connect with qualified tutors through the platform.

"The diagnostic question is key to everything that we do," said Caulfield. "Our multiple choice questions are all purposely designed by the author to uncover a particular misconception. So, what that means is that we don't just understand that you have a knowledge gap, but we understand why the knowledge gap exists. It's that which makes us quite unique in this space."

By feeding this information back to the classroom, teachers can take individual difficulties into account by preparing lessons accordingly.

"It means that teachers can put kids into smaller cohorts, so if they understand that one group got all the questions right, those students can go on to another activity and the teacher can focus on the other cohorts who are struggling," Caulfield continues.

"It provides that kind of individualising instruction in the classroom."

Keeping AI in the classroom personal

Bringing artificial intelligence into the classroom in a way that sustains the personal side of teaching is difficult, meaning that platforms like Eedi have to strike a balance between the benefits a vast database of pre-existing responses can bring to individuals by making predictions of their strengths and weaknesses, while also realising that technology cannot replace the personal instruction of a teacher.

For Caulfield and his team at Eedi, how personal and therefore how effective learning can be depends on the quality and breadth of the data used.

"How I see AI in terms of the classroom context and education more generally is defined by the quality of data that it feeds on, and it's not just about the quality of the information but also the breadth of that information. The problem we often encounter is; kids need to be continuously assessed, because changing topics means teachers need to reflect back on what they have retained. That also means a lot more questions have got to get answered.

Otherwise, you're missing pictures."

For the team at Eedi, it's not just individual instruction, but also the motivational side of learning which technology struggles to mimic. In an academic year where both students and teachers alike faced the challenge of moving online, both a personal experience and the motivation to learn and improve no doubt suffered.

But Eedi's recent partnership with Microsoft Research based in Cambridge aims to drive forward plans to create affordable alternatives to the learning experience, including to tuition, active learning and motivational drive.

According to Caulfield, young students find it difficult to regularly question their own learning, and therefore identify room for growth and improvement.

"Most kids don't have the ability to goal set that far in advance," Caulfield continues."It's becoming increasingly harder for teachers to provide that individualisation. I think that's where personalised pathways come in."

Thanks to the partnership with Microsoft Research, the personalised pathways Eedi offer are growing through the development of new key tasks.

"We've been working hard to be investing quite heavily upfront with our relationship with Microsoft so we've had access to almost the entirety of their team and we've been working on particular tasks, such as active learning. What active learning does is it uses AI to say; What is the next best thing that I can provide this child which will give them the biggest opportunity to improve their future learning. It basically creates personalised pathways. At the moment, a child could come in, respond to a few questions and we would position them on one of 12,000 pathways."

Affordable alternatives to tuition

Often, bringing AI into any learning environment comes with huge costs. But what makes Eedi unique is that the personalised, hybrid model of AI and human tuition can be provided at less than the price of a cup of coffee per week. Being close to launching a 'freemium' element of the platform, Caulfield admits that keeping a low cost was a key priority from the start.

"If you think about the UK market, you're talking 20-25% are paying for private tuition, either agreed tuition, face-to-face tuition or online tuition, which means that 75% of the market isn't. That 25% are getting a competitive advantage compared to the rest of society."

With private tutors in the UK costing on average between £29 and £41 per

hour, Caulfield notes the strength in the fact that Eedi can get unlimited lessons down to less than two pounds per week.

What's next for Eedi?

Going forward, Eedi not only plans to expand to new markets, but also to new areas of study, and the bank of responses in place will provide a strong starting point.

"In our repository of questions, we have 100,000 of these diagnostics and roughly 55,000 of those are maths orientated, meaning there's a huge volume of data for other questions related to other subjects."

As schools take a break for the summer and look ahead to a new academic year, where a greater degree of normality is set to return, the team at Eedi are hoping to notice a greater uptake up of the service, since the technology no longer has to compete with schools for students' attention span at home.

Eedi is set to continue to drive innovation at the cross section of AI and edtech.

Ben Caulfield is the cofounder and CEO of _Eedi_.

Article by ABBY WALLACE