



Einstein once said that if you can't explain it to a six-year-old, you don't understand it yourself. Today, the six-year-olds are explaining it all to us

THE Code IS IN THE Cradle

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HE TENSION on Milan's face is almost palpable as he tinkers with a piece of equipment that looks too complicated for me to explain. "What are you making?" I ask. Blushing, he mumbles, "A robot," and goes back to methodically fixing a loose wire with a small soldering iron. Milan is all of seven years old.

At this point, the mind might paw at terms like 'boy genius' or 'child prodigy', but Milan is no loner in this endeavor. He is one of many ordinary UAE school children who have been introduced to a world of robotics and programming at a young age. Facilitating these introductions is Amir Yazdanpanah, a corporate software veteran and the mastermind behind MakersBuilders in Dubai.

By CHRISTINE GROVÉ • Photographs by ALEX ATTACK

📍 CODING KIDS

Michael and Arya learn visual programming, something this writer would struggle with.



The idea for MakersBuilders came to Yazdanpanah when he started teaching his own sons some visual programming skills. As he went along, he received calls from friends who were also keen for their kids to learn, and it was then that he realized an opportunity staring him in the face.

He started with one visual programming class in early 2015, and by May of that year, he launched his company, offering after-school workshops, weekend courses, and holiday camps, covering games, robotics, coding, video/audio, and 3D modeling.

“Instead of playing, you build,” Yazdanpanah says. “I call it digital literacy. I don’t expect them to become professional programmers but if someone decides to eventually become a one, we can look at other tracks to facilitate that. But, for now, we want to get them exposed to the whole range of being digital first.”

Although technology has become integral in our lives today, the workings behind it are still considered as ‘foreign’, and only for a few of the world’s nerds to understand. The reality though

TECHNOLOGY IN THE MENA CLASSROOM

📍 97% OF TEACHERS FEEL THAT TECHNOLOGY plays a big role in transforming education systems

📍 52% OF THE TEACHERS don’t have adequate access to training

📍 40% OF TEACHERS SAY there is a lack of integration of technology with the curriculum

📍 32% OF THE TEACHERS ARE IMPLEMENTING STEM education and digital literacy as part of their curriculum

is that young children today are heading for a significantly different future, where being able to code is as important as being able to read.

TEACHING, BUT NOT REALLY

Hoping to prepare these kids for a future of unfathomable technological advances is exactly what MakersBuilders sets out to do. With Yazdanpanah at the helm, his team of tech-loving tutors

provides innovative STEM learning for children and teenagers, in an environment very different from school.

“It’s my belief that technology education doesn’t suit itself to the traditional way of teaching. It’s often even better not to be a teacher. Here you learn by doing,” says Yazdanpanah.

Educational institutions around the globe are facing real challenges implementing these new kinds of curriculums into their classrooms, and because of the ever-evolving nature of technology, it does seem to be an altogether impossible task.

“First of all, it’s already hard to find good teachers and bring them here to the region. With subjects like math and science, the teaching formula hasn’t changed for hundreds of years, but computing and coding is a different story. And that’s why it hasn’t really been introduced into the curriculum,” Yazdanpanah says. “They know they need it, but don’t know how to do it. Teachers are intimidated by this.”

Partnering with schools like GEMS, Taaleem, and the American School of Dubai, MakersBuilders has been able to

get the word out about the programs, and schools are all very keen to be on board, he claims.

“I think the topic [of how to integrate technology into the classroom] is going to be discussed at a high velocity, especially at new schools positioning themselves as ‘innovative’ and ‘technologically advanced,’” he adds.

WHEN SUPPLY CANNOT MEET THE DEMAND

Technology is already changing the way we do business, the way we shop, and the way we spend our downtime. So there’s no surprise that it’s very quickly changing the way we educate our future generations. The problem, though, comes when the supply doesn’t match up to the demand.

“Even technology companies have trouble keeping up with the technology, let alone schools in the Middle East,” says Yazdanpanah.

A recent study done by Microsoft in the MENA region found that while teachers feel it’s imperative to integrate technology into educational institutions, the vast majority of them haven’t or are unable to do so.

“With over half the survey respondents indicating a lack of budget and training to optimize the use of technology in the classroom, there is a definite need to improve integration of technology in classrooms in the region to meet the needs of the

“Even technology companies have trouble keeping up with the technology, let alone schools in the Middle East.”

21st century labor market,” says Ahmed Ameen Ashour, educational lead, Microsoft Gulf.

Other challenges identified by the respondents include a lack of training to use technology optimally, with 52% saying they didn’t have adequate access to training, and a further 40% indicated that there is a lack of integration of technology with the curriculum.

NEXT IS NOW?

So what’s the solution? Yazdanpanah believes that it should be and will be a combination of partnerships with ICT groups to help with training and curriculum, as well as e-learning and virtual classrooms.

WHY SHOULD KIDS LEARN TECH IN CLASS?

Well, it’s a no-brainer

• When the child goes through the process of creating, they ask questions, they learn new skills, they research, they collaborate—there’re a lot of important soft skills that come with creating these things.

• They learn how to talk to computers. Computers can be robots or any other semi-intelligent devices. One day when they become doctors or restaurant owners or graphic designers etc., they can create their own websites or their own apps. This is where technology is going. It is being integrated into our daily lives, and future careers are going to need tech-savvy graduates to be able to cope.

• An objection is an opportunity. By the time today’s kids graduate, there’ll no longer be such a thing as staying in a job for 10 years. By the time a 10-year-old gets to starting his career, he’s going to be in a world where he needs to reinvent himself frequently and constantly learn new skills. And most of them will be tech-based.

tech, and who sees the social and economic value of it.”

Outside of the educational institutions, MakersBuilders is also working with corporates like GE, who are focused on creating awareness among their employees and consumers, as part of their corporate social responsibility initiatives. They provide MakersBuilders with facilities within Masdar City, Abu Dhabi, where they hold workshops for the UAE Ministry of Economy.

MakersBuilders has also partnered with DP World who are sponsoring the latest set of summer camps.

But while Yazdanpanah welcomes the traction, he stresses that, first, everyone needs to be on the same page, especially those at educational institutions. “Those in charge aren’t familiar with technology themselves. So it’s going to take time for the awareness itself. There isn’t enough awareness. If there are events, they’re one-off events, now and then,” he says.

“I have spoken to some of the teachers and they say they cannot attend these events, on what’s called the PDB [personal development budget]. They need to spread this budget of maybe \$300 over a whole year and these events aren’t cheap.”

But is it necessary for kids to learn technology in class? “I think learning how to use technology from a young age is not about how to use PowerPoint or Excel at work, but about how to create something like PowerPoint or Excel,” he stresses. “The jobs of the future require creativity and use of technology. That’s what makes it important for kids to get that mindset.”

Teaching the kids at MakersBuilders isn’t just about the tech for Yazdanpanah. “The biggest thing I want to leave with them is that you can learn anything and it’s not hard anymore.”

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