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**CEOCFO Magazine** 

### ROYBI the Learning Robot is using Algorithms through Artificial Intelligence and Machine Learning, Games, Stories and Songs to create a Personalized Educational Experience for Children Ages 3+

Elnaz Sarraf Founder & CEO

ROYBI

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#### CEOCFO: Ms. Sarraf, what is the vision behind ROYBI®?

**Ms. Sarraf:** Our mission at ROYBI is to make a significant impact on children's lives by providing them with a personalized educational experience. Every child deserves to get educated based on their own interests and abilities, which is what we want to offer based on the ROYBI's algorithms, through artificial intelligence and machine learning.

# CEOCFO: How do children know what they are interested in? When do they recognize what they would like to learn?

**Ms. Sarraf:** That is a very interesting question! I must say that these days, kids are much, much smarter than we think. Even kids as young as two years old can start to learn about emotions, showing what they like or intrigues them. We believe that children understand what they want--in terms of the product--and how they want to interact with it based on the strong interest they show.

Of course, ROYBI is at a very early and raw stage. However, with ROYBI, we can gradually understand children's interests based on the interactions that they have with the lessons. That information will help us better support their interests and abilities.

#### CEOCFO: How does ROYBI work?

**Ms. Sarraf:** ROYBI comes with over 500 lessons, stories, and other content specially crafted for children. The lessons are conversational to encourage speaking, listening, pronunciation and taking turns. For example, it asks the child to repeat vocabulary words or sentences while giving feedback. There are also over 50 categories, including animals, occupations, clothing, and even math and science for basic STEM.

ROYBI has a small display on its "belly" that shows pictures and emojis so that children can also associate new vocabulary and concepts with images. ROYBI also comes with a wireless charging plate with LED buttons that light up in different colors during lessons. While these buttons are fun for them to play with, it also helps them learn colors, directions (left/right/middle), and listen to directions. We included these buttons because we believe that children learn best through playing. They are having so much fun that they don't even realize they are learning.

Also, the most significant feature of ROYBI is its artificial intelligence. As we collect the data to understand the interactions between ROYBI and the child, machine learning kicks in to follow the child's progress. If the child is progressing faster

than at an average pace for their age range, ROYBI can adjust the content so that it works with them on a more complex lesson. If they are going through the material a little bit slower, it can add more basic lessons to ensure a solid understanding before moving forward. From this, we understand how they are progressing. We create reports for parents and educators so they can see their child's progress, and ultimately customize their educational experience.

#### CEOCFO: Why is it so powerful that ROYBI is not screenless? Why does that make such a difference?

**Ms. Sarraf:** It is nice that children want to play with phones or even tablets. However, scientifically it has been proven that these screens have special lights that are damaging to kids, especially when they are little. These devices also create situations where there is not much interaction with the child. The problem is that when you look at early education, there are not many helpful tools and products available. Parents often give phone and tables to their kids because it's their only choice. We resolve this by giving them ROYBI as another option. ROYBI is entertaining, yet it has no display. The screen is not large enough that it will damage children's eyes. Plus, the content in every lesson is short--less than 5 minutes--discouraging extended or all-day interaction.

### CEOCFO: How do you ensure the ROYBI is tough enough for kids who tend to throw things and not be as gentle as we would like them to be?

**Ms. Sarraf:** Yes, absolutely! We hear this question all the time! We have been drop testing the product, and it did fair under testing. The body is made of thick plastic material, so that if they drop it on carpet or even a hard surface, but not from a really high distance, it is okay and will not crack. Of course, if you throw something with full force, even your phone, it will break.

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We also added a sensor into ROYBI, so when they shake ROYBI, it says cute things like, "Oh, that makes me dizzy," to help them understand that they need to really care for and be gentle with their companion toy. We've been working on components to solve this problem, but also in the future, we will have accessories that give more protection to ROYBI.

#### CEOCFO: What changed in your approach since your original concept to where you are today? Ms. Sarraf: A lot has changed, honestly!

#### CEOCFO: That is usually the answer I get!

**Ms. Sarraf:** Honestly speaking, everyday something is changing! The reason is that we go to a lot of conferences, we talk with a lot of people, and we get so much feedback. To give you a little example--that is very simple but so important--even our content is changing. For instance, we were at a conference last week, and in one of the lessons ROYBI wants to make a breakfast sandwich, so it says, "I want bacon" or "I want pancakes." However, some people said that is not polite, so now we have ROYBI say, "I would like to have bacon." The reason I say this is because we really care about improvement.

Two years ago, when we started, this was like an educational device that covers everything. However, we realized that doing it this way would make it like any other chatbot, so we decided to narrow it down to teach and offer an assessment. We agreed that the earliest stage would be much more beneficial for children to start having daily conversations, helping them develop skills for their future.

We gradually decided to focus more on language learning so that we can help children around the world communicate. Eventually, we also added basic science and math for them to learn. Therefore, I would say that a lot has changed. It is really not the product we were thinking of two years ago.

## CEOCFO: On your website it indicates that you have received a number of different awards. What standsout for you? What is most meaningful?

**Ms. Sarraf:** Everything! Every award is truly meaningful because each one of them stands for a different mission or purpose that we have. For example, very recently, the Fast Company awarded us the World-Changing Ideas. That is so amazing because when you think about it, the product is still not on the market. The fact that a big company like Fast

Company is paying attention to what we are trying to accomplish, even though it is in the very, very early stage is gratifying.

We are not in the idea stage, but still, a very early stage, and they are awarding us these accomplishments, which is amazing! Being recognized in robotics is important for what we are trying to accomplish because there is really nothing that exists like this. We do not have any big competitors.

#### CEOCFO: Would you tell us about the recent financing and how far it will take you?

**Ms. Sarraf:** First, we are still very excited about our Seed Round, which was \$4.2 million. That financing is definitely going to help us to accelerate our launch. We are hiring more people. We already have six full-time employees and five part-time employees right now. There are currently 12 open positions for the US and China, so the team is going to grow very fast. We are also launching the product into the market immediately during the upcoming holidays.

We are talking with retailers at the moment, which will help us pilot into different regions, and testing the interactions from children in different countries so that we can learn more. It can easily take us for a year in terms of being able to expand the team and of course, the content that we have already.

#### CEOCFO: Why pay attention to ROYBI?

**Ms. Sarraf:** ROYBI is very, very different! It is unique, and our real purpose is to have a global impact on children's education and truly change their lives. In ten years from now, society will be extremely different than what it is today. Children will have to gain many different skillsets and learn more about robotics and AI. Like it or not, all of these technologies are going to come into our lives, regardless of our opinions. Plus, people like it.

Many people are still scared of AI and robots, and this feeling is okay. However, we want to give children around the world the opportunity to learn essential skills and build a strong foundation in their education. ROYBI is not only affordable, but it uses the cloud to continuously update lessons, helping children receive a customized education experience across the globe. When they are at school, at home, or when they are outside or traveling, they can always have ROYBI and continue to learn different skills.