ROTEM ALALUF

CEO of Wand.ai

Lucia Sinapi-Thomas, Executive Vice President – Capgemini Ventures Managing Director

That is very interesting and gives me an easy transition to Rotem, because what you are putting on the market with Wand.ai is a platform that lets you build assistants in different roles that can collaborate with each other. This sounds very futuristic.

Rotem Alaluf, CEO of Wand.ai

Thanks a lot for inviting me here and for the introduction. The core thing that Wand is doing is what we call artificial workforces. Today, we have human workforces, and we are working on an artificial version for companies to have agents collaborating, first between themselves but also with humanity. If we think about the first generation of generative AI, the focus was to see how we can create a single artificial brain that can take information and generate responses on that base. If you think about the human brain in that context, it has not changed much during the last thousands of years but society and information flows between different humans are what enable us to step up and create most of the things we have created today. There is still a lot of work on the artificial brain, and we call what we are working on cognitive language models, with improved reasoning and planning capabilities, as well as self-awareness capabilities. However, they work a bit differently than transformers today, which have several gaps, one being the need to have a lot of data. As mentioned before, it is much easier to reach human capabilities when you have execution capabilities and after that you are able to get feedback into the system. Coding is one of those because you can run the program and see if it is working and then get the output back into the models and have this feedback loop. However, there are also other ways to get to those points, and there is still a lot of work on how we are creating this artificial brain. But, just as humanity evolved based on societal interactions and working together, we think that the next generation of the technology is going to build a society of agents, a group of agents able to collaborate and evolve over time.

If we take an example of a company today, let us say Capgemini, they run and execute a lot of tasks and when they understand they have gaps in the execution they will hire new people to execute the tasks in a better way the next time. We want to enable agents in similar processes, so they are able to execute the tasks they are given by the humans and if they believe they can do it better next time, we want this group to self-evolve, in a sense to hire a new agent autonomously so that they can run it better. It is very similar to what was discussed before because the task is executed, ideally there is some human feedback, and at the end of the process we are able to compare it to groups of agents. This is about having a group that executes tasks, checks its inefficiencies in the execution or at least assumes the inefficiencies and the solutions, creates a new group of improved agents with new functionalities and roles

that are added to the group. This process then continues until we have an artificial workforce group that is self-evolving in order to solve more and more complex tasks.

This is from the fundamental and core technology, and it uses a lot of reinforcement learning technologies, not just generative model technology and generative AI. One thing is to build this artificial workforce and the second is the best way for humanity to collaborate with this artificial workforce. We need a lot of feedback in order to bring those artificial workforces to levels of execution that are similar or better than humans. The best feedback comes from humanity and the collaboration with the artificial workforce will be crucial for how we enable the assistants to automate and execute more and more complex tasks over time. Ideally, we want every agent in our system to be able to approach every person in any organization when it wants to ask a question when it gets stuck, when its critical technology tells it that it does not know how to solve a problem by itself. We want them to be able to go to any human in a complete two-sided collaboration process between humanity and the agentic system. That is what we are working on and as part of that we are also working on the fundamental technology of a specific brain, but mainly on how those artificial workforces are working together with the human workforce.

Lucia Sinapi-Thomas

That is fascinating and I am sure you share my view that this is also futuristic. We hear you talking about collaboration between digital agents and employees, what is the role of the employees in your vision?

Rotem Alaluf

That is a great question. I think one of the mistakes that is happening in companies, enterprises, governments and a lot of different organizations we work with today is that they are looking at individual employees and asking how AI can help this individual employee to do better. That is a very problematic way to look at it because employees are not necessarily going to do the same things, so they may do something completely different. If we take the example of the Industrial Revolution, people who handmade T-shirts moved to managed production lines, so the role evolved into something different and together they were able to achieve 100 or 1,000 times more productivity gains than was possible before. We believe that we will see a similar process and first, in the first 5, 10, or 20 years, we will see a lot of feedback loops from humans. We want agents to be proactive and ask for feedback when they do not know how to solve a problem, the humans to help them solve it, so the agents learn and will be able to do more and more things. However, we believe that people will eventually evolve to the strategy and creativity processes, the things that are more random and involve less data. Connecting to what was said before, humans will focus more on the things that have a bit less data on how to take the decisions and what to do in those types of situation, but we believe that most of the execution problems will eventually be transitioned to agents. That will happen first in places where we have a lot of data but after that, with human feedback, we are going to get to this loop. We do not think we currently have enough data, but we are going to collect it.