

# Behind the Markets Podcast: All about Artificial Intelligence

Published March 15, 2023

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On the March 10 episode of the *Behind the Markets* podcast, we had the pleasure of speaking with Blake Heimann, Senior Associate, Quantitative Research at WisdomTree. Within our team, we spend a lot of time talking about artificial intelligence (AI) with Blake, especially lately. Years ago, he was bitten by the bug, gaining a passion for studying such things as statistical methods, regressions and time series forecasting. He's even pursuing a master's degree presently, focused on AI and machine learning.

With the release of ChatGPT from OpenAI<sup>1</sup> in the latter part of 2022, AI entered into the public's consciousness in a manner reminiscent of some of the world's most successful applications—such as TikTok<sup>2</sup> and Instagram<sup>3</sup>. We wanted to have this conversation in order to provide perspective on AI and help people in thinking about the space itself, as well as avenues of potential investment research. Some of the topics we covered included:

### **ChatGPT**

It's difficult to say how long we'll be focused on ChatGPT or the value that it may bring, but it speaks to how AI is a space subject to nonlinear advances. A lot of work and investment went into creating ChatGPT, and then it represented something very tangible for any person to see and experience. We have to remind ourselves that next year we may be talking about something entirely different and even more capable, but we also admit that competing with ChatGPT purely on the basis of "viral adoption" would be quite a feat.

### **Graphics Processing Units (GPUs) and the Discussion of Nvidia vs. Intel**

Within semiconductors, Nvidia<sup>4</sup> has had an excellent run, almost branding itself as THE company most capable of designing the best semiconductors upon which to train AI models. Intel<sup>5</sup>, on the other hand, has stumbled on some of its more cutting-edge hardware releases and has even had to cut its dividend recently. We were able to talk to Blake about how to consider the differences between these companies in the present market environment.

### **Ambarella for Computer Vision Chips**

We didn't want to fall into the trap of only discussing some of the largest and most recognizable semiconductor firms, so we asked Blake if there were any semiconductor companies out there that he,

as someone more deeply involved in AI and machine learning, is excited about. He did not hesitate and noted Ambarella<sup>6</sup>. Ambarella is designing specific chips that are involved in computer vision, specifically as it relates to autonomous driving, and Blake went into a discussion about image segmentation and how these chips are getting better and better at performing these rather involved calculations directly, in almost real time.

### **Proliferation of Data and Opportunities for AI Disruption**

The biggest reason, in our opinion, that we are discussing things like ChatGPT and autonomous driving is that we have recently gotten to a place globally where we are generating more data than ever before. We asked Blake, with the proliferation of this data, what industries he believes are most ripe to be disrupted in terms of AI providing something powerful in a faster, more efficient way. Blake noted that this could happen in many industries, but then he did settle on the concept of using AI for drug discovery—namely, how models can suggest potential compounds and molecules that have the potential to react in a beneficial way to help with therapeutics. While AI may not directly create drugs end-to-end, it may suggest interesting paths for researchers to try and cut down the overall time from concept to finished drug.

### **Conclusion: Always Look at the Direct Functional Expertise for Any AI Company**

There is a big difference between a company that mentioned AI a few times on a recent earnings call and a company that is directly providing AI as a solution to real, current-day problems. Blake noted in numerous ways the importance of always being able to see the specific AI function being performed by a given AI company in order to help judge its potential attractiveness as an investment.

### **Listen to the full conversation below:**

1 OpenAI is not a publicly listed company eligible for purchase by equity exchange-traded funds focused on public investments.

2 TikTok is an application run by the parent company ByteDance, a Chinese company that is currently privately held.

3 Instagram is an application run by Meta Platforms. META had a 1.66% weight in the WisdomTree Artificial Intelligence & Innovation Fund as of March 10, 2023.

4 Nvidia had a 2.47% weight in the WisdomTree Artificial Intelligence & Innovation Fund as of March 10, 2023.

5 Intel was not included as a constituent in the WisdomTree Artificial Intelligence & Innovation Fund as of March 10, 2023.

6 Ambarella had a 2.10% weight in the WisdomTree Artificial Intelligence & Innovation Fund as of March 10, 2023.