

Podcast Name: *ACM ByteCast*

Episode: Pattie Maes - Episode 38

Welcome to the *ACM ByteCast* podcast, a series from the Association for Computing Machinery! The podcast features conversations with researchers, practitioners, and innovators at the intersection of computing research and practice about their experiences, lessons learned, and visions for the future of computing. In this episode, host Rashmi Mohan interviews guest Pattie Maes, Professor at MIT's program of media Arts & Sciences and the Head of the MediaLab's Fluid Interfaces research group. She is a pioneer in the research area of human and computer interaction and AI. Through her extensive and celebrated career, she has been a researcher, a serial entrepreneur and mentor, a book and journal editor and the recipient of numerous awards.

To begin, Pattie introduces herself and shares what drew her to the field of computing. She studied computer science about 35 years ago in Belgium. Along the way, she became very interested in AI and got her PhD in the subject. Rather than making machines more intelligent, her real passion was building systems to help people become more intelligent. Her work is still about teaching others how to use AI to become our best selves. She was one of the very first people to actually study AI. What piqued her interest about the field was that it actually connected technology and people. The biggest problem is that not enough people from different backgrounds have helped develop these AI-based solutions. Thus, they get developed by engineers and get dropped into medical offices, retail services, etc. Pattie explains that this approach doesn't quite work. She fears that we are not thinking enough about the human elements of AI and how it can fit within our workflow today.

The work Pattie has been doing began before there were even internet browsers. One of her very first, in 1992, projects was to build recommendation systems to suggest new books, music, movies, etc. to users based on the things they already like. This service worked via email. Next, Pattie explains the challenges she faced running a business vs. building technology. When she first began at MIT's Media Lab, she was primarily focused on helping people retrieve information. Gradually, however, she realized that the online world was so disconnected from our physical lives. She wanted to make systems available in our physical life and began to work on wearable devices before the cellphone existed. The idea for this system, called the Remembrance Agent, was to give users relevant real-time information throughout the day.

While the technologies researchers have developed have been great, they have really made our attention very fragmented. What we do on our phone is usually completely unrelated to our physical surroundings. Thus, we are constantly switching between two worlds. Even on our devices, our attention is fragmented. There is so much potential to completely change the way we interact with our devices so that our attention and wellbeing is optimized much more. Pattie shares her realization that technology can actually help with the cognitive challenges we face. She believes that the best research involves collaboration and feedback from a diverse group of people. Her team at the Media Lab includes neuroscientists, psychologists, designers, and AI

people working together to bring fresh ideas. They also work with target users to develop technologies they actually want.

Before wrapping up, Pattie shares her experience as a woman in the early days of AI. There was a time when she was the only woman who was a professor in the lab. Though things have changed a lot since then, we still have a long way to go. Pattie believes that we do need more women in the field to make it even better. Finally, she shares what she is most excited about in the field of AI.

Key takeaways:

1:40 - Pattie introduces herself.

7:05 - Pattie's draw to AI and the problem with the field today.

11:50 - The evolution of technology and the internet.

18:05 - The challenges of running a business vs. building technology.

20:50 - Pattie's work on wearable devices to merge the online and physical worlds.

29:00 - Pattie's work on wearable medical devices.

32:45 - How Pattie fosters a diverse team.

36:58 - Being a woman in the industry.

40:13 - What is Pattie most excited about in the field of AI?

Links

Learn more about [Pattie Maes](#).

Learn more about [Rashmi Mohan](#)

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