BY
LESLIE PRIVES

AI for All

DRAWING WOMEN INTO THE ARTIFICIAL INTELLIGENCE FIELD

Beena Ammanath has a Google alert set for "diversity in AI" (artificial intelligence) and "AI for all"—and after three years of wondering when an organization would make these ideas mainstream, she decided to do it herself. "It seemed so obvious to me," says Ammanath, who founded the group Humans for AI last year.

Humans for AI is a nonprofit organization focused on increasing diversity in the AI workforce and doing so, in part, by leveraging existing AI technologies. The impetus for launching the organization was twofold. Ammanath saw that, while the prevalence of artificial intelligence in our everyday lives was increasing, the number of women studying computer science was decreasing. "When we talked about it in the 1990s, AI was this really far-off concept, with self-driving

Digital Object Identifier 10.1109/MWIE.2018.2866890
Date of publication: 6 November 2018

1942-065X/18©2018IEEE

Beena Ammanath

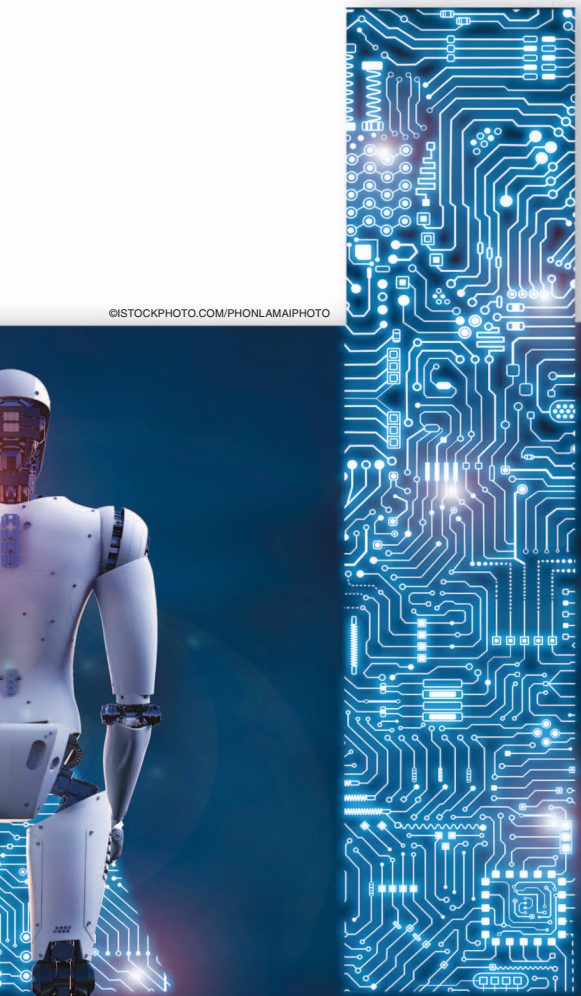
cars and the like," she explains. "But the future is here, now." Citing past examples, such as the Internet and mobile waves, Ammanath predicts that AI is likely to impact everybody's job and create the need for new ones. "For example, when I was studying, iOS developer was not a job—but look at it now."

Simultaneously, as Ammanath progressed in her computer-science-based career, she saw a lack of women to work alongside. "For selfish reasons, I wanted more female colleagues," she laughs. "I've just always been a huge advocate for getting more women into tech, and I'm seeing a lack of focus in companies to proactively train more women to take on the new types of jobs that are emerging."

Preparing for the AI Future

This is where Humans for AI comes in. "AI is still in its infancy, but in five to ten years, you're going to need domain experts actively involved in building AI products," says Ammanath. "If we don't do anything, it will continue to be men who serve as product experts in their domains. But if we train more women to understand enough about AI while they pursue their chosen profession, then they can be the product managers or part of the product teams working on AI in their fields. In that way, we get more women into tech."

Ammanath feels so strongly about the potential for women experts that she originally planned to call the organization *Women for AI*. However, when she ran the idea by a friend, he pointed out the opportunity to increase the diversity of all minority groups in tech fields. While this could benefit a wide variety



©ISTOCKPHOTO.COM/PHONLAMAIPHOTO

Ammanath was elected into the WITI Women in Technology Hall of Fame in 2017.

of groups, Ammanath notes that increasing diversity in AI jobs benefits the technology field overall. "When we have biases in the workforce, those will just scale out as AI grows. We need not only diversity of gender but of professional background, education, and socioeconomic status as well to be truly representative of the real world when building out AI products."

To achieve this, Humans for AI is pursuing a few areas of action, with education and democratization of access key among them. "Today, AI is more accessible to people who already know computer science," explains Ammanath. "Humans for AI is building out content by profession to be able to explain AI concepts using language that different people understand." For example, someone with a finance degree is more likely to comprehend the applicability of machine learning and AI in the process of fraud detection or risk management. For a doctor, the group could describe AI in the context of the medical field. And for someone in marketing, the content might focus on lead generation or targeted advertising. "I'm not expecting people to start coding, but at least when they read about AI in the news, they should be able to understand" the issues and implications, says Ammanath.

The group intends to eventually offer this content on its website, which will show different tracks by profession. They also plan to take it to universities and high schools. "We put a lot of focus on computer programming right now, but the type of programming we do today will go away," predicts Ammanath. "With the advances in voice recognition, you might be able to just describe something to an AI product, and it will program for you." Before we get there, though, Ammanath says, "I think it's important for my kids to understand how Alexa and Siri actually work."

For professionals, Humans for AI is hosting events and meetups. Its launch event in the Bay Area, California, in early 2018 was a packed affair, with 175 attendees and more than 100 others on a waiting list. The event's panel included professionals from sales, marketing, law, psychology, and information technology speaking about how AI is impacting their fields. "It was a great stride toward making AI more accessible, since data scientists tend to speak about it so technically," says Ammanath.

Still, the launch event was truly just a start. Ammanath notes that over half the attendees were men, so there is still progress to be made with the gender split. Furthermore, the team working with Humans for AI is looking to lead by example. Within a day of registering the company and posting about it on LinkedIn, Ammanath received significant interest from all over the world. "I have over 150 volunteers working with me on this, but most of them are from tech and data science backgrounds because they're my followers on LinkedIn," she says. "There isn't yet as much representation as we would like within the volunteer pool, so we're proactively weeding through our networks to find more diverse volunteers that can build out the content together."

A Diverse Personal Trek

Not that Ammanath is discounting the work performed by data scientists. "After all, I lead a team of data scientists," she laughs. "I've always been in the data field in some way." Ammanath, who holds both bachelor's and master's degrees in computer science as well as an M.B.A. degree in finance, has spent her career growing from database programmer to data analyst to manager of data teams. "It's been interesting because managing data has changed so much in the last 25 years. I've been through the business intelligence and data warehouse space, through Hadoop, and now on to AI," she says. Ammanath has also worked across company sizes (from start-ups to large corporations and their various cultures) and across industries (telecom, e-commerce, finance, the industrial and manufacturing world, and now in computers and services as the global vice president of artificial intelligence, data, and emerging technology innovation at Hewlett Packard Enterprise Company).

"Every time I look for a new opportunity, I think about what I can learn," she remarks. "When I change roles, it's because I've stopped learning, and that's what has taken me on this path, even though it wasn't necessarily my plan. As long as I'm learning, I'm happy." Ammanath advises others to consider the learning opportunities as well. "Always be in learning mode. Always have an open mind," she counsels. "The computer languages I studied aren't even used anymore, so focusing on the fundamentals and looking at everything you learn as an opportunity for application will help a lot."

This is especially crucial for careers in science, technology, engineering, and math (STEM) because technology is coming at us faster than ever before, she continues. "Possibly what you learn today is not going to be the same five to ten years from now. Being open to learning and change is going to be necessary for success."

That same attitude is how Ammanath and her team of volunteers at Humans for AI hope to bring more diversity to tech careers within the AI space. Applying what they've observed from their own experiences within the changing world of STEM, they are readying the next generation of women and minority leaders within AI, driving success for leaders and the beneficial progression of AI in society overall.

—Leslie Prives is a freelance writer living in New York City.