In 2016—and Beyond—It'll Be All About the Data

by Nikitas Magel January 06th, 2016

Late in 2015, an announcement was made that raised very little fanfare in the mainstream media: Google was open-sourcing its artificial intelligence (AI) engine, TensorFlow. The move might be seen as just another example of the search giant's championing universal access to innovative source code. But underneath the surface the implications are far more reaching.

Wired magazine recently spoke to AI expert Lukas Biewald, CEO of San Francisco startup CrowdFlower, to get his take. Google's decision, he surmised, "showed that, when it comes to AI, the real value lies not so much in the software or the algorithms as *in the data* needed to make it all smarter." So, with TensorFlow, while the company is giving away its code, it's hanging onto something far more valuable. Said Biewald: "What they're *not* opening up is their data. They would never do that."

Google hasn't been the only company to make such a move. Earlier this year, Facebook's AI Research (FAIR) team open-sourced some of its own AI modules developed around computer vision, machine learning, and numerical computation. But there again, Facebook is keep a tight grasp on its data.

Why is that data so important? TensorFlow, as many similar AI systems that deal in deep learning, builds its intelligence from being fed vast amounts of information. With greater volumes of high quality data, learning grows in precision, accuracy, and reach. This means that companies with the richest troves of data have a distinct advantage in developing or maximizing the benefits of artificial intelligence. Using the data that their vast, global base of users feeds into their systems, these companies teach their AI software to think more humanly. Learning is, after all, about acquiring knowledge by assimilating and processing new information. *The input is key.*

That premise underpins the entire business model of an information services company like Neustar. As data plays an increasingly central role—regardless of application or industry—its quality, reliability, accuracy, and validity become critical. Put it into an intelligent workflow solution, that authoritative data drives human-like decision-making in real time, allowing you to go from figuring out the answers to having the answers presented to you. That's powerful currency in a world that revolves around the processing and exchange of information—including a future where machines will ultimately be taught to think like humans.

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