

# The Master Algorithm: How the Quest for the Ultimate Learning Machine Will Remake Our World, by Pedro Domingos

Algorithms increasingly run our lives. They find books, movies, jobs, and dates for us, manage our investments, and discover new drugs. More and more, these algorithms work by learning from the trails of data we leave in our newly digital world. Like curious children, they observe us, imitate, and experiment. And in the world's top research labs and universities, the race is on to invent the ultimate learning algorithm: one capable of discovering any knowledge from data, and doing anything we want, before we even ask.

Machine learning is the automation of discovery—the scientific method on steroids—that enables intelligent robots and computers to program themselves. No field of science today is more important yet more shrouded in mystery. Pedro Domingos, one of the field's leading lights, lifts the veil for the first time to give us a peek inside the learning machines that power Google, Amazon, and your smartphone. He charts a course through machine learning's five major schools of thought, showing how they turn ideas from neuroscience, evolution, psychology, physics, and statistics into algorithms ready to serve you. Step by step, he assembles a blueprint for the future universal learner—the Master Algorithm—and discusses what it means for you, and for the future of business, science, and society.

If data-ism is today's rising philosophy, this book will be its bible. The quest for universal learning is one of the most significant, fascinating, and revolutionary intellectual developments of all time. A groundbreaking book, *The Master Algorithm* is the essential guide for anyone and everyone wanting to understand not just how the revolution will happen, but how to be at its forefront. It is available on Amazon at <http://www.amazon.com/Master-Algorithm-Ultimate-Learning-Machine/dp/0465065708/>

Please join Pedro on Aug. 19th at 3 PM as he discusses the five main schools of thought in machine learning. A general-purpose learner that can in principle be applied to any domain. The symbolists have

inverse deduction, the connectionists have backpropagation, the evolutionaries have genetic programming, the Bayesians have probabilistic inference, and the analogizers have support vector machines. What we really need, however, is a single algorithm combining the key features of all of them. In this talk I will:

- Describe my work toward this goal, including in particular Markov logic networks
- Speculate on the new applications that such a universal learner will enable
- How society will change as a result

- See more at:

<http://smartdata2015.dataversity.net/sessionPop.cfm?confid=91&proposalid=7899#sthash.8DVZRH8J.dpuf>