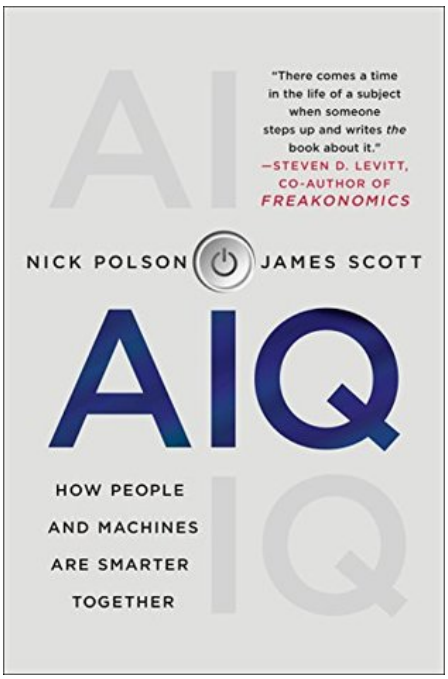

AIQ: How People and Machines Are Smarter Together

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“There comes a time in the life of a subject when someone steps up and writes *the* book about it. *AIQ* explores the fascinating history of the ideas that drive this technology of the future and demystifies the core concepts behind it; the result is a positive and entertaining look at the great potential unlocked by marrying human creativity with powerful machines.” —Steven D. Levitt, bestselling co-author of *Freakonomics*

From leading data scientists Nick Polson and James Scott, what everyone needs to know to understand how artificial intelligence is changing the world and how we can use this knowledge to make better decisions in our own lives.

Dozens of times per day, we all interact with intelligent machines that are constantly learning from the wealth of data now available to them. These machines, from smart phones to talking robots to self-driving cars, are remaking the world in the 21st century in the same way that the Industrial Revolution remade the world in the 19th century.

AIQ is based on a simple premise: if you want to understand the modern world, then you have to know a little bit of the mathematical language spoken by intelligent machines. *AIQ* will teach you that language—but in an unconventional way, anchored in stories rather than equations.

You will meet a fascinating cast of historical characters who have a lot to teach you about data, probability, and better thinking. Along the way, you'll see how these same ideas are playing out in the modern age of big data and intelligent machines—and how these technologies will soon help you to overcome some of your built-in cognitive weaknesses, giving you a chance to lead a happier, healthier, more fulfilled life.

AIQ: How People and Machines Are Smarter Together Details

Date	:	Published May 15th 2018 by St. Martin's Press
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Genre	:	Artificial Intelligence, Nonfiction, Science, Technology

James Scott

From Reader Review AIQ: How People and Machines Are Smarter Together for online ebook

Terry Pearce says

Clear, thoughtful analysis of how AI has developed, how it is used well and not so well, and where it might be going.

James Mundy says

A nice introduction to some of the concepts behind natural language processing, recommendation algorithms, image recognition and other places where machine learning and data are changing the world.

Kristian Norling says

This is well suited to the AI interested layman. I found the chapter on medicine/healthcare especially Interesting.

Quintin Zimmermann says

AI pervades the fabric of our society and its influence upon our daily lives is expanding exponentially, literally "changing the world one smartphone at a time."

In AIQ, Nicholas Polson and James Scott who are bona fide data scientists, urge us to not only embrace this technological revolution, but also to give remembrance to mostly unheralded historical figures from a much earlier time, whose mathematical theories and data-analysis forms the very bedrock of AI technology and development in its current sophisticated state. From Facebook to self-navigation cars to seeking nuclear warheads, you will be amazed at how centuries old math is still informing the math behind modern technology.

The surge in AI development in the last decade is owed to three enabling technological forces that have supercharged AI into a new age. Namely, the exponential growth in the speed of computers called Moore's law, the explosive growth in the amount of data generally available and cloud computing, all resulting in the minimising of cost and radically upscaling the computing function of powerful algorithms.

What truly enhances the reading and intellectual pleasure of AIQ, is the fact that the authors didn't seek to dumb down the subject matter, but rather took their readers by the hand and guided them in a very accessible way through the myriad of math and theory, so that we can truly appreciate and understand this complex topic in a meaningful way, with illuminating real life examples to illustrate their technical points and ultimately help readers close out AIQ with a better understanding of the digital world around us.

Curt says

Easy-to-read overview of algorithms and data science concepts, enlivened with stories of the historic roots of various techniques. I especially liked the chapter on natural language processing. A few equations, just enough to get the idea across.

Daniel says

This is by far the clearest and realistic book about Artificial Intelligence that I have ever read to date.

Rather than testing AI like a black box and readers like kindergarten kids (you won't understand anyway), Polson explains in clear English how AI works. Basically AI uses Bayes' theorem. Start with base rates, and adjust when new data comes so you get better and better. Even though a lot of the AI has proprietary algorithms (trade secrets), the principles are the same.

Each AI algorithm only does 1 thing well pretty much like an app. Polson thinks that worrying about AI getting sentience is like worrying about our space vehicles approaching a black hole when we have just invented the first aeroplane. He categorically states that no matter how smart AI looks, it does not really understand anything and is just crunching numbers.

So what makes good AI?
1. A large data set and lots of computing power.
2. Smart AI researchers who ask the right questions and tries to eliminate biases. If we just take raw data which already incorporate biases (e.g. women are paid less for the same job), then AI will just propagate the same bias.
3. Continual improvement because AI algorithm grows old pretty quickly. He gives the cautionary tale of Google's (now stopped) Flu Epidemic detection app. It overestimated flu severity and has been scrapped. This is because by prompting searches with search suggestions, it changes the search itself.

I especially like the clear explanation on speech recognition by 'word vector'. Reading this book makes you realise that Skynet is still very far away.

Bari Dzomba says

Dumber down but good book. Healthcare examples right on the mark.

Doug says

Super basic popular press take on AI. The more you know, the less useful it is, but has some good points nonetheless.

Jigar says

Context is the biggest motivator there is to learn something. This book is on point in that regard.First let us learn about how AI came to be, what it really does and how it does it. Then jump into writing code and working fancy math.

Jim Connelly says

Great introduction to the understanding of what artificial intelligence is and the enormous potential it has for making our lives better and smarter. Written for the non-scientist or mathematician this book explains what AI is, its evolution, where it is now and what it offers us going forward. For those with vague fears of computers taking over the world AIQ frames the reality of human control and benefits vs. pitfalls. Recommended.

Andy Allsopp says

A little shorter than the subject matter might have merited, but an entertaining, optimistic and ultimately persuasive primer on how AI affects our past, present and long term future.

Joyce Wheeler says

AIQ goes into the basics of what it is or how it works, its not for the advanced in the field itself. That actually works for me since I am not one of those people. Its a lot about concepts and the history that led to the advancements in the field. This books helps explain recent topics in algorithms and Facebook, or the 2016 elections but doesn't go into the political positioning to choose a side to alienate any particular reader. It helps the novice understand AI and the importance of the people working with it, making the concept a lot less daunting and scary.

Tim Dugan says

This book is 90% fluff/backstory and 10% AI details.

Yeah sure some of the fluff was interesting, but it’s not AI.

And for that matter, the AI info was mostly Bayesian statistics.

Not a very broad approach. Not a very deep approach.

I know they were avoiding too much math, but they went overboard