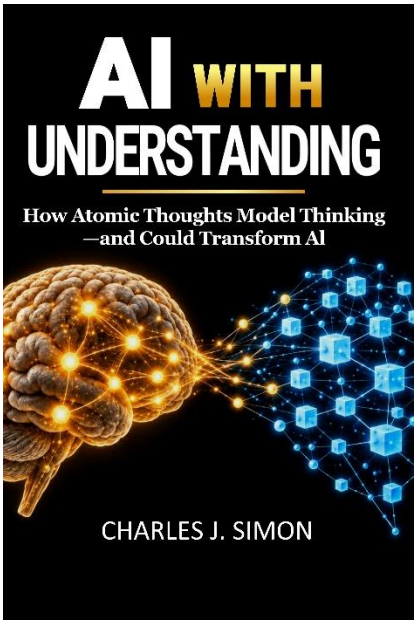


AI WITH UNDERSTANDING

How Atomic Thoughts Model Thinking—and Could Transform AI

Charles J. Simon Publication: February 2027

How does your brain do things today's AI can't?

Today's AI can do remarkable things, but brains can still do many things AI can't. How does the brain do them—and can we bring those ideas into AI?

AI With Understanding explores these questions through a new model of cognition called **Atomic Thoughts**. Accompanied by working, interactive online Labs, the book lets readers explore how simple, reusable structures might support recognition, memory, knowledge, language, and reasoning. These capabilities emerge from a unified model of knowledge rather than separate AI systems. Like physical atoms, Atomic Thoughts can be combined into structures of almost unlimited complexity.

Why this book is different

- Offers a concrete, biologically plausible alternative to today's dominant AI approaches.
- Explores how your own brain might represent knowledge and produce understanding.
- Includes working, open-source software and interactive online Labs.
- Points toward AI that is safer, more transparent, controllable, and energy-efficient.

Explore Atomic Thoughts Yourself

The book is accompanied by free, interactive online Labs where readers can build knowledge, explore relationships, and experiment with the mechanisms of thinking.
Try the Labs: https://futureaisociety.org/demos

About the Author



Charles J. Simon is an AI researcher, software developer, entrepreneur, and author with a long history of making complex technical subjects accessible. He has written books and dozens of articles and technical papers spanning computer engineering, artificial intelligence, and the future of intelligent machines. Simon holds a BS in Electrical Engineering and an MS in Computer Science. His career includes software development at Microsoft, neurological test instrumentation at Cadwell Laboratories.

Feb. 1, 2027, 294 pages, 38 Figures, 59 endnotes
Paperback ($24.95), Hardcover ($34.95), Kindle ebook ($9.95)
ISBN: 979-8-1673-6442-4 (Paper)
More info: demos: https://futureaisociety.org/demos Author: Charles@futureaisociety.org