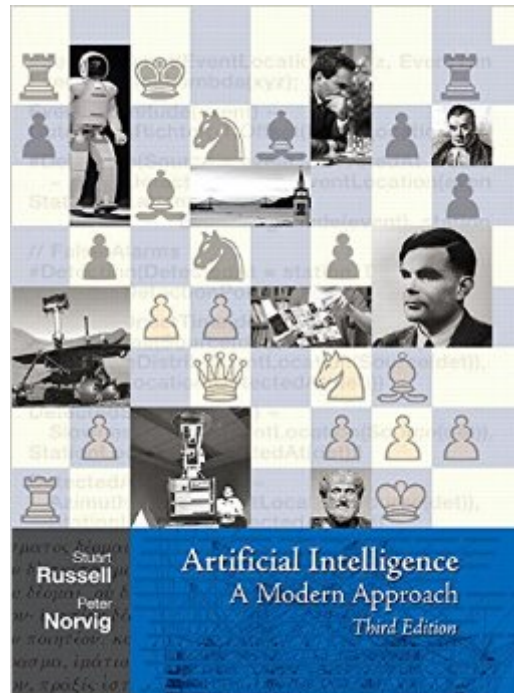# Artificial Intelligence: A Modern Approach (3rd Edition)

Synopsis

Artificial Intelligence: A Modern Approach, 3e offers the most comprehensive, up-to-date introduction to the theory and practice of artificial intelligence. Number one in its field, this textbook is ideal for one or two-semester, undergraduate or graduate-level courses in Artificial Intelligence. Dr. Peter Norvig, contributing Artificial Intelligence author and Professor Sebastian Thrun, a Pearson author are offering a free online course at Stanford University on artificial intelligence. According to an article in The New York Times , the course on artificial intelligence is â œone of three being offered experimentally by the Stanford computer science department to extend technology knowledge and skills beyond this elite campus to the entire world.â • One of the other two courses, an introduction to database software, is being taught by Pearson author Dr. Jennifer Widom.   Artificial Intelligence: A Modern Approach, 3e is available to purchase as an eText for your Kindleâ„¢, NOOKâ„¢, and the iPhoneÂ®/iPadÂ®.   To learn more about the course on artificial intelligence, visit http://www.ai-class.com. To read the full New York Times article, click here.

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Average Customer Review: 3.9 out of 5 starsÂ Â See all reviewsÂ (119 customer reviews)

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Customer Reviews

- With AIMA 1st Edition, I had relearned AI anew from a fresh, insightful and wonderfully pedagogical perspective.Best computer science textbook ever.- With AIMA 2nd Edition, I got a lot of recent advances in AI brought to me in the same way, even if presented at times in a way that was too concise for a textbook, and read more like an encyclopedia.Yet, great 2nd Edition.- This 3rd Edition is alas AIMA 2.1 and not the AIMA 3.0 that I was waiting for. The new material and new insightful way to organize past material are both scant. Certainly not worth the price for those who

own the 2nd Edition.Don't get me wrong, if you are about to buy your first AI textbook, this is a great buy as it is still light years ahead of the competition. But some chapters that were getting really thin and outdated in 2009 did not get significant updating.This is particularly true for knowledge representation. Missing are all the recent yet already consolidated advances brought about by the new solutions to the frame problem (such as the fluent calculus), default reasoning, abduction-based and case-based diagnosis, rule-based reasoning (such as constraint handling rules, answer sets, object-oriented logic programming etc.), in short, all forms of reasoning that are neither pure deduction, nor probabilistic. Advances on multi-agent reasoning are also not covered. I understand that to summarize AI in 1000 pages many important topics will not make the cut, but I feel, as a researcher on the topic for the past 25 years and lecturer on it for the past 15 years, that this 3rd edition contains obsolete stuff from the 80s (like frames, semantic networks, production systems, situation calculus, etc.) instead of their modern substitute listed above.

This is a reasonable overview of AI - and an amazing achievement to have so much material in one book - but it is increasingly out of date. A lot of the techniques described at length could be fairly described as "Good Old Fashioned AI" and could have been shortened to make way for more powerful modern techniques. Other reviews have given specific details, but machine learning techniques in particular deserve more than one chapter. There is no mention in the index of "bias/variance tradeoffs", an important topic in which good progress has been made lately.The changes in the third edition mostly amount to shuffling things around a bit. Only one chapter (Chapter 20) was substantially changed. Given the high price of the new edition it is probably not worth the money if you have an older edition. You would be better off to search out a specialised text or material on the web on the new techniques.Reading the book superficially, it is quite informative and enjoyable. The reference list is very good. However I found when I tried to use and implement the algorithms described I ran into problems. Concretely:* The pseudo-code is a strange mix of mathematical notation, Python-like code and prose. I found it very hard to turn it into real code, though I did succeed eventually in some cases. Apart from the undefined nature of the 'language', the variable names and function names chosen are often very uninformative and terse. You might have P (in bold) as one variable, and other p (in italics). Variable names like "var" and "value" abound. The pseudo-code does not follow the conventions described in the appendix. You need to have a high tolerance for frustration.* The writing style is terse and mathematical.

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