

## Book Reviews

**Introduction to Machine Learning**, Second Edition by Ethem Alpaydin, MIT Press, 584 pp., \$55.00. ISBN 978-0-262-01243-0  
doi:10.1017/S0269888910000056

I reviewed the first edition of this book in *Knowledge Engineering Review* 20(4), and thought it was a very good book on which to base a one semester introduction to machine learning. This edition is even better. The new edition is more than 150 pages longer, and the additional pages reflect a considerably wider scope. Rather than support vector machines being relegated to a section of a chapter on discrimination, there is now a whole chapter on kernel machines, better reflecting the interest in the field. Similarly probabilistic graphical models now have their own chapter. There is a new chapter on Bayesian estimation, and the chapter on experimental technique, which includes very valuable material on assessing the outcome of experiments, is much expanded. Overall, these are important upgrades to the book, and I think it is significantly improved. I am not sure that the new edition is any more likely to get me to teach the one semester introduction to machine learning that the first edition made me want to teach, but if it does, then *Introduction to Machine Learning* will definitely be the textbook.

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**Critical Play: Radical Game Design** by Mary Flanagan, MIT Press, 353 pp., \$29.95, ISBN 978-0-262-06268-8  
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In the last 20 years, video games have become solidly entrenched in popular culture. Part of this is the increased pervasiveness of computer technology in our lives. When I was a teenager, video games were mainly available in the form of an arcade game—large expensive consoles installed in public spaces that offered classic games like Space Invaders and Pacman consumed our pocket money. There were, of course, games for the new breed of microcomputer aimed at the consumer market, the Commodore 64 and the like, but these machines were not widespread, and unless a boy was lucky in his choice of friends, he was unlikely to have access to one. As the number of computers, both general-purpose computers and the kind of specialized computer that we usually call ‘cell phone’ or ‘game console’, has increased, so has the reach of the video game. The other reason for the rise of the video game is that games themselves have become much more sophisticated—compare my old favorite Chucky Egg with the recent Assassin’s Creed 2—offering not just passing entertainment, but complete new worlds in which to become immersed (to the extent that the overt goal of the game can become somewhat secondary; Pearce & Artemesia, 2009). This combination of increased access to game-supporting technology and the increased depth of many of the games, in turn, has led to the broadening of the market for such games from teenage boys to the population as a whole.

This widening audience (though given the participatory nature of games ‘audience’ is not really the right word), in turn, has led to the idea that video games do not just have to be about playing, they can have a serious purpose as well<sup>1</sup>. Klopfer (2008), for example, describes the use of games in an educational setting—work that is particularly innovative in that the educational objectives are

<sup>1</sup> Indeed ‘serious games’ are one sub-class of these more purposeful games.