

Cambridge: The Logical Choice

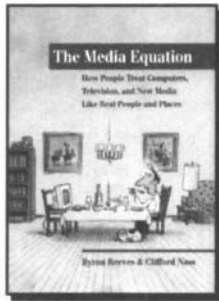
The Media Equation

How People Treat Computers, Television, and New Media Like Real People and Places

Byron Reeves and Clifford Nass

"Describing research and analysis in a jolly-professor/prankish-hacker way gives The Media Equation a friendly personality, but make no mistake: This is clearly a book of magic, full of dark and dangerous spells... Many programmers will find this book inspirational, so prepare yourselves for more personalities—good, bad, and ugly—from your computer."

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1996 305 pp. 1-57586-052-X Hardback \$27.95

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On Human Knowledge and Computer Representations

William J. Clancey

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Clancey examines the implications of 'situated action' from the perspective of artificial intelligence specialists interested in building robots.

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An Experimental, Quantitative Evaluation

D. C. Lee

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1996 239 pp. 57331-9 Hardback \$54.95

Basic Proof Theory

A. S. Troelstra and H. Schwichtenberg

This introduction to the basic ideas of structural proof theory includes a thorough discussion of various types of first-order logic. Examples are given of several areas of application. In each case the aim is to illustrate the methods in simple situations and then apply them in more complex settings. There are numerous exercises throughout the text.

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Computational Learning Theory

M. Anthony and N. Biggs

The authors concentrate on the probably approximately correct model of learning, and gradually develop the ideas of efficiency considerations. They further consider applications of the theory to artificial neural networks. Many exercises are included throughout, and the list of references is extensive.

Cambridge Tracts in Theoretical Computer Science 30

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Abductive Inference

Computation, Philosophy, Technology

John R. Josephson and Susan G. Josephson, Editors

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Abductive reasoning involves inferring the best or most plausible explanation from a given set of facts or data. Arguing that knowledge arises from experience by processes of abductive inference, this volume presents new ideas about inferential and information-processing foundations for knowledge and certainty.

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Natarajan Shankar

This book describes the use of a computer program to check the proofs of several celebrated theorems in metamathematics including those of Gödel and Church-Rosser. The computer verification using the Boyer-Moore theorem prover yields precise and rigorous proofs of these difficult theorems. It also demonstrates the range and power of automated proof checking technology. The mechanization of metamathematics itself has important implications for automated reasoning, because metatheorems can be applied as labor-saving devices to simplify proof construction.

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Book

Dym, C.L. (1994). *Engineering design: A synthesis of views*. Cambridge University Press, New York.

Chapter in an edited book

Quinlan, J.R. (1983). Learning efficient classification procedures and their application to chess end games. In *Machine Learning: An Artificial Intelligence Approach*, (Carbonell, J.G., et al., Eds.), Vol. 1, pp. 463-482. Morgan Kaufmann, Los Altos, California.

Proceedings

Craw, S., & Sleeman, D. (1990). Automating the refinement of knowledge based systems. *Proc. Ninth Europ. AI Conf.*, 167-172.

Proceedings with publisher identified

Mittal, S., & Frayman, F. (1989). Towards a generic model of configuration tasks. *Proc. Eleventh Int. Joint Conf. Artificial Intelligence*, pp. 1395-1401. Morgan Kaufmann, Los Altos, California.

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