

minimisation. 7. Generalising state-based minimisation. 8. Tailor-made techniques. 9. Narratives in the situation calculus. 10. Incomplete narratives and concurrent actions. 11. The foundations of logic programming. 12. Logic programs for reasoning about action. 13. Simplifying and extending the event calculus. 14. A circumscriptive calculus of events. 15. Applying the calculus of events. 16. Forced separation. 17. Explanation: The assimilation of observations. Epilogue: Is the frame problem solved? Bibliography. Appendices. A. Proof of Theorem 9.7.5. B. Proof of Theorem 14.5.2. C. Temporal projection algorithms. D. Proof of Theorem 15.5.3. Index.

*Designing Incentive Regulation for the Telecommunications Industry.* By David E. M. Sappington and Dennis L. Weisman. MIT Press/AIE Press, Cambridge, MA/Washington, DC. (1996). 388 pages. \$35.00.

Contents:

Foreword. Acknowledgments. About the authors. 1. Introduction and overview. 2. Today's telecommunications industry. 3. A review of existing regulatory plans. 4. Regulatory goals and resources. 5. Selecting performance criteria and reward structures. 6. Designing options in incentive regulation plans. 7. Fostering regulatory commitment powers. 8. Competition, regulation, and deregulation. 9. RBOC entry into interLATA long-distance markets. 10. Pitfalls in measuring the effects of incentive regulation. 11. Empirical studies of the effects of incentive regulation. 12. Conclusion. Glossary. References. Case and regulatory proceeding index. Name index. Subject index.

*An Introduction to Natural Computation.* By Dana H. Ballard. MIT Press, Cambridge, MA. (1997). 307 pages. \$45.00.

Contents:

List of figures. List of tables. Preface. I. Natural computation. I. Core concepts. 2. Fitness. 3. Programs. 4. Data. 5. Dynamics. 6. Optimization. II. Memories. 7. Content-addressable memory. 8. Supervised learning. 9. Unsupervised learning. III. Programs. 10. Markov models. 11. Reinforcement learning. IV. Systems. 12. Genetic algorithms. 13. Genetic programming. 14. Summary. Index.

*Web Client Programming with Perl.* By Clinton Wong. O'Reilly, Sebastopol, CA. (1997). 213 pages. \$29.95.

Contents:

Preface. 1. Introduction. 2. Demystifying the browser. 3. Learning HTTP. 4. The socket library. 5. The LWP library. 6. Example LWP programs. 7. Graphical examples with Perl/Tk. Appendices. A. HTTP headers. B. Reference tables. C. The Robot Exclusion Standard. Index.

*NetTravel: How Travelers Use the Internet.* By Michael Shapiro. O'Reilly, Sebastopol, CA. (1997). 284 pages. \$24.95 (CD included).

Contents:

Foreword. About the author. Acknowledgments. Introduction. 1. Destination anywhere. 2. Planes, trains, and automobiles. 3. Room and board. 4. Finding the best deals. 5. Taking care of business. 6. The ultimate vacation. 7. Adventure travel. 8. Newsgroups and mailing lists. 9. Traveling with the net. 10. How travel agents use the net. Appendices. A. NetTravel toolbox—Sites listed by subject. B. Basic internet training. C. A guide to the online services. Index.

*The Practical Imagination: The German Sciences of State in the Nineteenth Century.* By David F. Lindenfeld. University of Chicago Press, Chicago, IL. (1997). 382 pages. \$57.00, £45.50 (cloth); \$19.95, £15.95 (paper).

Contents:

List of tables and figures. Acknowledgments. Introduction: A theoretical framework. 1. The Seventeenth- and Eighteenth-Century background: Classification. 2. The French Revolutionary and Napoleonic Era, 1789–1815: Assimilation. 3. The sciences of state at their height, 1815–1840: Deliberation. 4. A period of transition, 1840–1866: Variation. 5. A truncated revival, 1866–1890: Organized research and charisma. 6. The Wilhelminian Era, 1890–1914: Specialization and clarification. Epilogue. Appendix: The data from university catalogues. Abbreviations. Bibliography. Index.

*Evolution of Parallel Cellular Machines: The Cellular Programming Approach.* By Moshe Sipper. Springer-Verlag, Berlin. (1997). 198 pages. DM 58.00, öS 423.40, sFr 51.50.

Contents:

Preface. 1. Introduction. 2. Universal computation in quasi-uniform cellular automata. 3. Studying artificial life using a simple, general cellular model. 4. Cellular programming: Coevolving cellular computation. 5. Toward applications of cellular programming. 6. Online autonomous evolware: The firefly machine. 7. Studying fault tolerance in evolved cellular machines. 8. Coevolving architectures for cellular machines. 9. Concluding remarks and future research. Appendices. A. Growth and replication: Specification of rules. B. A two-state,  $r = 1$  CA that classifies density. C. Specification of evolved CAs. D. Specification of an evolved architecture. E. Computing  $acd$  and equivalent  $d'$ . Bibliography. Index.