

TABLE OF CONTENTS

Preface	vii
Introduction. <i>Daniel E. Bailey</i>	ix
 Part I. The Place of Computer Science in Social and Behavioral Science.	
1. Social Science Computing Curricula: Guidelines for Development. <i>Ronald E. Anderson</i>	5
2. Computer Science and the Undergraduate: How Much of a Good Thing Is Enough? <i>Forrest H. Armstrong</i>	13
3. Improving Social and Behavioral Science Utilization of University Computer Centers. <i>Richard A. Wiste and Norman E. Sondak</i>	26
4. Computer Use in Undergraduate Psychology Curricula: Some Recommendations. <i>B. James Starr</i>	37
5. Computer Use in the Undergraduate Curriculum in Political Science. <i>Kendall L. Baker, James W. Hottos, and Stuart H. Rakoff</i>	52
6. Computer Applications in Teaching and Learning. <i>Ronald L.</i>	

Koteskey, Fred S. Halley, James M. Swanson, and Robert J. Tracy 64

Part II. Statistics and Methodology.

7. Social Science Data Processing: An Overview. *James M. Sakoda, Ronald E. Anderson, Francis Sim, and Richard A. Wiste* 81

8. Computer Aids in Teaching Statistics and Methodology. *Richard S. Lehman, B. James Starr, and Kenneth C. Young* 97

9. Use of Computer-Generated Data for Instruction in Statistics. *Antanas Suziedelis* 123

10. Computer-Assisted Instruction in Experimental Design. *Francis Campos* 131

11. The Use of Audio-Visual Techniques in Computer Instruction for Social Scientists. *Michael A. Baer and Nona M. Newman* 139

Part III. Social Impact.

12. Computer Literacy. *James R. Bohland and Ronald E. Anderson* 149

13. The Computerized Society. *Roberta Ash, Robert Ogden and Larry Gluck* 155

14. Sociology of Computing: Conceptual Framework and Curriculum Development. *Francis Sim and Ronald E. Anderson* 161

Part IV. Computer Based Enhancement in Social and Behavioral Science Education

15. Experiment Simulation (EXPER SIM): The Development of a Future-Oriented Pedagogy. <i>Dana B. Main</i>	183
16. Computer Graphics and Instructional Enhancement: Theory and Methodology. <i>James R. Bohland</i>	202
17. ALL: Automated Learning Laboratory. <i>B. James Starr and Sally A. Flanik</i>	233
18. A Case for Computer Modeling in the Political Science Classroom. <i>James W. Hottos and Stuart H. Rakoff</i>	240
19. An Interactive Computer Program for Theory Building in Sociology. <i>Fred S. Halley</i>	258
20. Some Interactive Computer Programs for an Introductory Econometrics Course. <i>James Cieccka</i>	268
21. A Computer Oriented Introduction to Cognitive Psychology. <i>William L. Bewley</i>	277
22. Computer Construction of Test Forms: Sampling from Item Pools. <i>Phillip L. Emerson</i>	291
23. Write Your Own Book and Revise It Every Semester—Or Instruction Personalized by and for the Teacher as well as for the Student. <i>Ronald L. Kotesky</i>	305
24. Political Science and Computers: An Application. <i>Steven Parker</i>	311

Part V. Simulation and Modeling.

25. Simulation and Modeling in the Classroom. <i>Richard S. Lehman</i>	319
26. Simulation and the Possibilities of Learning: An	

xxiv Computer Science in Social and Behavioral Science Education

Interpretation of the Uses of a Small Computer in Undergraduate Instruction in Economics. <i>Ralph N. Calkins</i>	329
27. Computer Simulation of Psychological Processes. <i>Frederick Wm. Hornbeck</i>	336
28. CHEBO: The Checkerboard Model of Social Interaction. <i>James M. Sakoda</i>	357
29. Interactive Causal Modeling in the Social Sciences. <i>James G. Anderson</i>	374
30. Computer Based Instruction in Sociology: A Computer Simulation Approach. <i>James G. Anderson</i>	385
31. Computer Simulation of Human Intelligence and Analysis of Natural Language. <i>Ellen Bouchard Ryan and Patrick J. Ryan</i>	394

Part VI. Bibliographies

32. Computers in Science Fiction: A Brief Annotated Bibliography for the Social and Behavioral Scientist. <i>Norman E. Sondak and Vernon Sondak</i>	405
33. A Bibliography on Social Science Computing. <i>Ronald E. Anderson</i>	411

Part VII. The Bottom Line.

34. Why Correct Programs Give Wrong Answers. <i>Richard V. Andree</i>	463
35. Effective vs. Efficient Computing. <i>Richard V. Andree</i>	483