TECHNOLOGY and the TRANSFORMATION of WHITE-COLLAR WORK

edited by
Robert E. Kraut
Bell Communications Research
Morristown, New Jersey



Contents

Pref	face	ix
PART I: SOCIAL IMPACT OF WHITE COLLAR TECHNOLOGY		
1.	Social Issues and White-Collar Technology: An Overview Robert E. Kraut	1
	Abstract 1 The Revolution in White-Collar Work 1 The Sad History of Predictions 4 Issues in the Transformation of Work 7 Conclusion 21	
2.	Electronic Work and the White-Collar Employee Dennis Chamot	23
	Abstract 23 Employment Effects 24 Homework 30 Solutions 32	

vi CONTENTS

3.	White-Collar Women and the Rationalization of Clerical Work Priscilla Murolo	35
	Abstract 35 From Homogeneity to Hierarchy to General Segregation 37 The Productivity Drive 39 The Limits of Rationalization 45 Conclusion: Rationalization and the Two White Collars 49	
4.	Changing Office Technologies and Transformations of Clerical Jobs: A Historical Perspective Suzanne Iacono and Rob Kling	53
	Abstract 53 Computerization as a Complex Strategic Intervention 55 Transformations in the Quality and Character of Office Life 57 Technological Change and Clerical Jobs 61 Clerical Jobs in Future Offices 69 Conclusions 74	
5.	Technology and the Transformation of Clerical Work Roslyn L. Feldberg and Evelyn Nakano Glenn	77
	Abstract 77 The Introduction and Spread of Computer Systems, 1950–1978 79 Occupational Structure 81 The Organizational Level 87 The Work Process 90 Conclusions 93 Addendum 94 General Conclusions 97	
6.	Computers and the Automation of Work Philip Kraft	99
	Abstract 99 The Computerization of Computer Work 100 Women in Software Work 102 Middle Managers 105 Computerization and Skill 108 Conclusion 109	

	CONTEN	NTS vii
7.	Predicting the Use of Technology: The Case of Telework Robert E. Kraut	113
	Abstract 113 Telework Now 116 Benefits of Remote Work 123 Discussion 129 Summary 133	
8.	Telework: Practical Experience and Future Prospects Margrethe H. Olson	135
	Abstract 135 Technology and Work Organization 136 Profiles of At-Home Employment 138 An Exploratory Survey of Work-at-Home Programs 141 Employee Reactions: Formal Versus Informal Programs 145 Summary and Conclusions 148	
PAI	RT II: IMPLEMENTING TECHNOLOGY IN THE OFFICE	
9.	Understanding the Implementation of Office Technology Tora K. Bikson	155
	Abstract 155 Conceptual Framework 156 Participants and Research Procedures 157 Representing Implementation Success 159 Exploring Influences on Implementation Outcomes 162 Organizational Contexts and Implementation Success 163 Computer Systems and Implementation Success 166 Implementation Processes and Successful Outcomes 171 Discussion 174	
10.	User Needs for Office Systems Solutions James H. Bair	177
	Abstract 177 Office Automation has Become a Cultural Phenomenon 177 Cultural Forces have Resulted in Office Technology Not Office Solutions 179 Office Systems: The Current Share of Mind 182	

viii CONTENTS

	Studies of User Needs and Wants 183 The Next Step Toward Office Solutions 192 Summary 193	
11.	Social Interaction and Office Communication: Effects on User's Evaluation of New Technologies Jeanette L. Blomberg	195
•	Abstract 195 Methodology 198 Case Study Examples 198 Copier User Community 199 Interface Design Community 206 Conclusions 210	
12.	Job Design and Quality of Working Life James C. Taylor	211
	Abstract 211 Turbulent Business Environments and Job Design 211 The Quality of Working Life 215 Innovative Use of Office Technology 216 Technological Determinism 219 The Purpose-Oriented Approach to Work Design 220 Socio-Technical Systems Design 221 Design and Redesign of Organizations 223 Application of Socio-Technical Systems to Plant and Office 224 Conclusions 235	
13.	Niels Bjørn-Andersen and Dian Kjærgaard Abstract 237	237
	The Scope of the Design Process 238 The Choice of Equipment and Software 240 Mechanical and Organic Organizations 241 The Function of the System 243 Information and Education for Users at all Levels 246 Power Imbalance and Implementation Strategy 248 Oppression or Liberation? 250	
Refe	erences	253
Auth	nor Index	269
Subj	ect Index .	275