

# High-Tech Society

The Story of the  
Information Technology Revolution

TOM FORESTER

The MIT Press  
Cambridge, Massachusetts

# Contents

	Preface and Acknowledgments	vii
1	Introduction <i>The High-Tech Revolution - High-Tech Fever</i>	1
2	The Computer Revolution <i>Beginnings - How Chips are Made: the "Laws" of Microelectronics - New Types of Chip - New Ways of Making Chips - Supercomputers - The Fifth-Generation Project - Toward Artificial Intelligence (AI)</i>	17
3	Silicon Valley: Home of High-Tech Man <i>Origins - Secrets of Success — Semiconductor Industry Trends — The Japanese Chip Challenge - Problems in Paradise - Here Comes High-Tech Man</i>	50
4	The Telecommunications Explosion <i>Going Digital - Deregulation and After - The Global Marketing Battle - Fiber Optics - Cable TV - Satellite Communications - DBS — Cellular Radio — New Network Services: Electronic Mail, Videoconferencing - Videotex</i>	81
5	Personal Computing <i>Personal Computers - The Personal Computer Boom - The Software Revolution - Taking Computers Home - Consumer Electronics: the Video Age - Working From Home: the Electronic Cottage - Computers in the Classroom</i>	131

vi Contents

6	Factories of the Future	170
	<i>Here Comes the Automatic Factory - The Robots Have Arrived - Computer-Aided Design and Manufacturing - Flexible Manufacturing Systems - Japan's Productivity Challenge to America and Europe - Factory Automation: Vision and Reality</i>	
7	The Electronic Office	195
	<i>Now Ifs the Office of the Future - Convergent Technologies - Dreams and Realities - Slow Progress with Productivity - The Changing Pattern of Office Work - The Automated Office: Prison or Paradise?</i>	
8	Micros and Money	218
	<i>Keeping the Customer Satisfied - Electronic Banking: Fast Bucks - Financial Information Goes On-Line - Paying with Plastic - The Retail Revolution - Home Banking and Shopping</i>	
9	Key Problems for High-Tech Society	241
	<i>High-Tech, Smokestacks or Services: Where Will the Jobs Come From? - What Kind of Work? - Managing Technological Change: Will Labor Be Left Out in the Cold? - High-Tech Crime: Are Hackers Heroes? - The Threat to Privacy</i>	
10	Conclusion	273
	<i>America at the Crossroads - What Will Japan Do Next? - Can Europe Catch Up?</i>	
	Selected Further Reading	290
	Index/Glossary	297