

Adamson, Glenn (2005). *Industrial strength design: How Brooks Stevens shaped your world*. Cambridge, MA: The MIT Press. ISBN 0-262-51186-X, pb, \$25.

Designed Brooks Stevens created thousands of ingenious and beautiful designs for industrial and household products – including a clothes dryer with a window in the front, a wide-mouthed peanut butter jar, and the Oscar Meyer Wiernermobile. In 1954 he coined the phrase ‘planned obsolescence,’ defining it as ‘instilling in the buyer the desire to own something a little newer, a little better, a little sooner than is necessary.’ This book, the first publication to document his work, includes 250 illustrations of designs by Stevens and his firm, many in color, detailed studies of individual designs, interpretive essays, a description of the Brooks Stevens Archive at the Milwaukee Art Museum, and several key writings by Stevens himself.

Cobb, James C., William Stueck, Eds. (2005). *Globalization and the American South*. Athens, GA: University of Georgia Press. ISBN 0-8203-2648-8, pb, \$19.95.

In 1955 the Fortune 500 list of America’s largest corporations included just 18 with headquarters in the Southeast. By 2002 the number had grown to 123. In fact, the South attracted more than half of the foreign businesses drawn to the United States in the 1990s. The eight original essays collected here consider this stunning dynamism in ways that help us see anew the region’s place in that ever accelerating transnational flow of people, capital, and technology known collectively as “globalization.” Moving between local and global perspectives, the essays discuss how once faraway places including Latin America, Asia, Africa, and the Indian Subcontinent are now having an impact on the South. Indeed, global forces not only are reshaping the South also are adapting to and exploiting its peculiarities. Although the new ethnic food section at the local Winn-Dixie is one manifestation of globalization, so too is the wide-ranging export of such originally southern phenomena as NASCAR and Kentucky Fried Chicken.

Dutton, William H., Brian Kahin, Ramon O’Callaghan, Andrew W. Wyckoff, Eds. (2005). *Transforming enterprise: The economic and social implications of information technology*. Cambridge, MA: The MIT Press. ISBN 0-262-54177-7, pb, \$32.

Innovators across all sectors of society are using information and communication technology to reshape economic and social activity. Even after the boom – and despite the bust – the process of structural change continues across organizational boundaries. *Transforming Enterprise* considers the implications of this change from a balanced, post-bust perspective. Original essays examine first the impact on the economy as a whole, and, in particular, the effect on productivity. Next, the role of information technology in creating and using knowledge is considered, especially knowledge that leads to innovation. Finally, new organizational models, as seen in the interlocking and overlapping networks made possible by the Internet, are proposed. The authors also analyze structural changes in specific sectors, including the effect of information technology on the automotive industry, demand-driven production and flexible value chains in the personal computer industry, and new models of outsourced manufacturing in the electronics industry. The final essays examine the societal implications of the diverse ways that information technologies are used – across individuals, groups, communities, and nations, considering questions of access and the digital divide.

Ehrhardt, Kathleen L. (2005). *European metals in native hands: Rethinking technological change, 1640-1683*. Tuscaloosa, AL: University of Alabama Press. ISBN 0-8173-5146-9, pb, \$29.95.

Kathleen Ehrhardt’s research addresses the early technological responses of one particular group, the Late Protohistoric Illinois Indians, to the availability of European-introduced metal objects. To do so, she applied a complementary suite of archaeometric methods to a sample of 806 copper-base metal artifacts excavated from securely dated domestic contexts at the Illiniwek Village Historic Site in Clark County, Missouri. This group in a broad social context integrates Ehrhardt’s scientific findings with observations from historical, archaeological, and archival

research to place metal use. In revealing actual Native practice, from material selection and procurement to ultimate discard, the author challenges acculturation perspectives on, and technocentric explanations of, Native material and cultural change at contact.

Fagan, Brian M. Ed. (2004). *The seventy great inventions of the ancient world*. New York: Thames & Hudson. ISBN 0-500-05130-5, hc, \$40.

Drawing on modern science and the latest research, leading authorities explore some of history's most fascinating inventions, beginning with the basic technologies of stone and fire, bone and wood. Some of the most fundamental questions of the past are addressed. How and where did agriculture evolve? What were the first houses like and when did the stone arch come into use? How did Romans and others heat and plumb their dwellings? What was the impact of cooking, food preservation and fermentation on the development of ancient cuisine? How did the wheel and cart change human life and increase mobility? When did the first roads appear and when did long-distance seafaring begin? Packed with evocative photographs and information diagrams, maps and plans, this work is a unique guide to some of humanity's most remarkable inventions and a testimony to the brilliant ingenuity and opportunism of our forebears.

Fensel, Dieter, James Hendler, Henry Lieberman, Wolfgang Wahlster, Eds. (2005). *Spinning the semantic web: Bringing the World Wide Web to its full potential*. Cambridge, MA: The MIT Press. ISBN 0-262-56212-X, pb, \$23.

As the WWW continues to expand, it becomes increasingly difficult for users to obtain information efficiently. Because most search engines read format languages such as HTML or SGML, search results reflect formatting tags more than actual page content, which is expressed in natural language. This book describes an exciting new type of hierarchy and standardization that will replace the current 'Web of links' with a 'Web of meaning.' Using a flexible set of languages and tools, the semantic Web will make all available information – display elements, metadata, services, images, and especially content accessible. The result will be an immense repository of information accessible for a wide range of new applications. This first handbook for the semantic Web covers, among other topics, software agents that can negotiate and collect information, markup languages that can tag many more types of information in a document, and knowledge systems that enable machines to read Web pages and determine their reliability. The truly interdisciplinary semantic Web combines aspects of artificial intelligence, markup languages, natural language processing, information retrieval, knowledge representation, intelligent agents, and databases.

Fetterman, David M., Abraham Wandersman, Eds. (2005). *Empowerment evaluation principles in practice*. New York: The Guilford Press. ISBN 1-59385-114-6, pb, \$27.

This book presents the most current formulation of the ten principles of empowerment evaluation and provides the tools to put these principles into practice. Through case studies of diverse evaluation projects – including community health foundation initiatives, school district programs, and a \$15 million corporate program aimed at bridging the digital divide – the founder and leading proponents of empowerment evaluation clarify key concepts and discuss important lessons learned. Coverage includes how to balance program improvement efforts with accountability requirements; how empowerment evaluation can be used to guide standards-based work; how to use empowerment evaluation in a learning organization; the differences among empowerment, collaborative, and participatory evaluation; and much more.

Foerst, Anne (2004). *God in the machine: What robots teach us about humanity and God*. New York: Dutton. ISBN 0-525-94766-3, hc, \$24.95.

This unusual book looks at issues likely to arise as robots grow more like their creators and play a larger role in the world—a process whose first steps have already been taken. Anne Foerst,

theologian and research scientist, shares her discoveries from her days acting in an informal liaison between the Harvard Divinity School and MIT, during a time that she worked at both institutions. During this period she noticed similarities between the religious community as it struggled to comprehend God's will and obey divine laws, and the work of scientists struggling to understand how intelligence can be replicated and how self-aware machines can be constructed. She describes her encounters at MIT's Artificial Intelligence Laboratory with Cog, an imposing seven-foot robot representing the first stages of 'embodied AI,' that is, an intelligent machine capable of reacting to the physical world. Foerst also met the more humanlike robot Kismet, who responded to human visitors with recognizable facial expressions. She tells of how human observers surprised themselves with feelings of sympathy for Kismet; some of these people debated if it was right to have such sympathy for what was a 'lifeless machine.' God in the Machine takes a unique look at the impact technology will have on the way human beings regard themselves and their reasons for existence.

Fong, Yem S., Suzanne M. Ward (2004). *The changing landscape for electronic resources: Content, access, delivery, and legal issues*. Binghamton, NY: Haworth Information Press. ISBN 0-7890-2441-1, pb, \$29.95.

This book shows how libraries using electronic resources can reduce costs and save transaction time for large and small public libraries as well as academic libraries. It also reveals recent initiatives related to open source software and core standards for resource sharing and interlibrary loan, such as the Bath profile and the NISO Circulation Interchange Protocol (NCIP). Special features of this timely book include figures, diagrams, references, and Web sites.

Ganor, Boaz (2005). *The counter-terrorism puzzle: A guide for decision makers*. New Brunswick, NJ: Transaction Publishers. ISBN 0-7658-0298-8, hc, \$39.95.

This unique book deals with all relevant aspects of counter-terrorism and analyzes decision makers' main dilemmas. It is based on accumulated experience in the field all over the world, particularly in the State of Israel where the author has lived and worked for many years. The method of presentation is to portray the main dilemmas in each sphere of counter-terrorism – defining the threat and appropriate counter measures, evaluating intelligence, offensive and defensive action, legal and judicial issues, media coverage, international cooperation – and to analyze them in terms of Israel's accumulated experience, comparing them, in many cases, to the experience of other countries. The conceptual models used, and the indexed charts appearing at the end of the discussion of each respective dilemma, enable decision makers to think rationally without outside considerations, and employs cost/benefit considerations to resolve each dilemma most effectively. Considerations of various aspects of technology arise throughout the book.

Goodchild, Peter (2004). *Edward Teller: The real Dr. Strangelove*. Cambridge, MA: Harvard University Press. ISBN 0-674-01669-6, hc, \$29.95.

One Nobel Prize-winning physicist called Edward Teller, 'A great man of vast imagination . . . [one of the] most thoughtful statesmen of science.' Another called him, 'A danger to all that is important . . . It would have been a better world without [him].' That both opinions about Teller were commonly held and equally true is one of the enduring mysteries about the man dubbed 'the father of the H-bomb.' In the story of Teller's life and career, told here in greater depth and detail than ever before, Peter Goodchild unravels the complex web of harsh early experiences, character flaws, and personal and professional frustrations that lay behind the paradox of the 'real Dr. Strangelove.' His biography draws on interviews with more than fifty of Teller's colleagues and friends. Their voices echo through the book, expressing admiration and contempt, affection and hatred, as we observe Teller's involvement in every stage of building the atomic bomb, and his subsequent pursuit of causes that drew the world deeper into the Cold War – alienating many of his scientific colleagues even as he provided the intellectual lead for politicians, the military, and presidents as they shaped Western policy.

Greenspan, Nancy Thorndike (2005). *The end of the certain world: The life and science of Max Born*. New York: Basic Books. ISBN 0-7382-0693-8, hc, \$26.95.

Twenty years after Einstein laid the foundation for quantum theory, his close friend Max Born broadened this theory with one of the most profound principles of the century, his theory of indeterminacy, only to have Einstein declare to him, 'God does not play dice.' Einstein and Born debated the nature of the universe –certainty versus uncertainty – until Einstein's death thirty years later, despite the Nobel Committee's support of Born's position when they awarded him the Nobel Prize in Physics in 1954. Born left his homeland when the Nazis forced him to immigrate to Great Britain. The subsequent explosion of the atom bomb inflicted a further blow. It was a cruel twist of fate that Born, a pacifist who lives science for its beauty, had educated the developers of the bomb. Robert Oppenheimer, Edward Teller, and Eugene Wigner, among others, had flocked to Göttingen, Germany, the 'font' of quantum knowledge, to work with Born. Among his physicist peers, Born was exceptional in his denunciation of what he saw as their dirty hands in the innumerable deaths in the devastation wrought by the atom bomb. Once he was awarded the Nobel Prize, he saw it as his duty to use his new platform to campaign against the development of nuclear weapons.

Grubb, W. Norton, Marvin Lazerson (2004). *The education gospel: The economic power of schooling*. Cambridge, MA: Harvard University Press, 2004. ISBN 0-674-01537-1, hc, \$39.22.

In this incisive history of the 'gospel of education,' W. Norton Grubb and Marvin Lazerson reveal the allure, and the fallacy, of a longstanding American faith: that more schooling for more people is the remedy for all our social and economic problems and the central purpose of education is preparation for the workplace. They argue that the aptitudes developed in schools and universities and the competencies required in work are often mismatched. At least a third of all Americans are overeducated for the jobs they hold, while many others are undereducated for serious work. The race for personal advancement and the focus on worker preparation have squeezed out civic education and learning for its own sake. Paradoxically, the focus on schooling as a mechanism of equity has reinforced social inequity. The challenge now, the authors show, is to create learning environments incorporating both practical and civic goals, and to prevent the further descent of education in a preoccupation with narrow work skills and empty credentials.

Hamblin, Jacob Darwin (2005). *Science in the early twentieth century: An encyclopedia*. Santa Barbara, CA: ABC CLIO. ISBN 1-85109-665-5, hc, \$85.

The first half of the 20th century was one of the most productive periods in science and technology. Great thinkers revolutionized science and technology and laid the foundations for the boom that followed. It was a time when both negative and positive effects of science and technology were evident. From relativity and quantum mechanics to antibiotics and insulin to Nazi racism and the atomic bomb, this volume provides coverage of the science and technology and scientists and engineers of this period.

Howells, John (2005). *The management of innovation & technology*. Thousand Oaks, CA: SAGE Publications. ISBN 0-7619-7024-X, pb, \$39.95.

This book analyses a range of social contexts in which human decisions shape technology in the market economy. It comprises a critical review of both a select research literature and in-depth historical studies. Material is drawn from many social science disciplines to inform the reader of the reality of making decisions on innovation. Topics covered include: 1) the social context for acts of creative insight, technology development and the management of R & D, 2) the role of institutions of finance, technical education and intellectual property in innovation, and 3) an introduction to the role of the state in maintaining the innovative capacity of the private sector.

Jaffe, Adam B., Manuel Trajtenberg (2002). *Patents, citations & innovations: A window on the knowledge economy*. Cambridge, MA: The MIT Press. ISBN 0-262-60065-X, pb, \$30.

This book, now issued in paperback, demonstrates the usefulness of patents and citations data as a window on the process of technological change and as a powerful tool for research on the economics of innovation. Patent records contain a wealth of information, including the inventors' identity, location, and employer, as well as the technological field of the invention. Patents also contain citation references to previous patents, which allow one to trace links across inventions. The book lays out the conceptual foundations for such research and provides a range of interesting applications, such as examining the geographic pattern of knowledge spillovers and evaluating the impact of university and government patenting. It also describes statistical tools designed to handle methodological problems raised by the patent and citation processes. The book includes a CD with complete data on 3 million patents with more than 16 million citations and a range of author-devised measures of the importance, generality, and originality of patented innovations.

Kaika, Maria (2005). *City of flows: Modernity, nature, and the city*. New York: Taylor & Francis. ISBN 0-415-94716-2, pb, \$25.95.

Nature and the modern city are often perceived as opposites, separated by firm barriers. Through a history of water's role in the modern city, *City of Flows* shows that nature is in fact fully integrated into urban life despite our frequent inability to recognize its presence. Natural elements and processes permeate all facets of modern urban social life, even the most mundane. The vast and mostly hidden infrastructure of water – pipes, taps, underground pumps, aqueducts – has been crucial to urban development, and Maria Kaika's investigation into its workings dissolves any sense of a geographical divide between nature and the social.

Kleinman, Daniel Lee, Abby J. Kinchy, Jo Handelsman, Eds. (2005). *Controversies in science and technology: From maize to menopause*. ISBN 0-299-20394-8, pb, \$24.95.

The essays in this collection are chosen to offer the reader a balanced discussion on the controversies surrounding issues such as genetically modified crops, overuse of antibiotics used on the farm and hormone replacement therapy, among others. Anyone who wants to engage with these issues in a thoughtful and intelligent manner will benefit from these essays and their comprehensive discussion. It offers the right amount of scientific discussion and data needed to allow readers to critically assess the issues that affect our current society.

Laughlin, Robert (2005). *A different universe: Reinventing physics from the bottom down*. New York: Basic Books. ISBN 0-4650-3828-X, hc, \$26.

Robert Laughlin is Professor of Physics at Stanford University and 1998 Nobel Prize winner in Physics for his work on the fractional quantum Hall effect. He argues that the most fundamental laws of physics – such as Newton's laws of motion and quantum mechanics – are in fact emergent. That is to say we must step back and look at the patterns and interactions of everyday objects to discover the nature of our universe rather than thinking that more fundamental properties of matter adequately explain reality as we experience it. *A Different Universe* takes us into a universe where the vacuum of space has to be considered a kind of solid matter, where sound has quantized particles just like those of light, where there are many phases of matter, not just three, and where metal resembles a liquid while superfluid helium is more like a solid. We live in a universe teeming with natural phenomena still to be discovered. Laughlin proposes nothing less than a new way of understanding fundamental laws of science.

Lord, M. G. (2005). *Astro turf: The private life of rocket science*. New York: Walker & Company. ISBN 0-8027-1427-7, hc, \$24.

This book is the inside story of the Jet Propulsion Laboratory in Pasadena, CA by a daughter of a former employee. Started in 1936 by Frank Malina and others, it was the central driving force

behind the design and successful launch of space vehicles. Lord humanizes the lives of rocket engineers, details their achievements and failures, and along the way also explains how the male dominated culture is slowly changing in the field of rocketry and space sciences.

Luhmann, Niklas (2005). *Risk: A sociological theory*. New Brunswick, NJ: Aldine Transaction, a division of Transaction Publishers. ISBN 0-202-30764-6, pb, \$29.95.

The late Dr. Luhmann develops a theoretical program for sociological research on risk. His premise is that the concept of risk projects essential aspects of our description of the future onto the present. Risk is conceived as the possibility of triggering unexpected, unlikely, and detrimental consequences by means of a decision attributable to a decision maker. Luhmann shows how strongly and how differently the separate segments of modern society, such as politics, law, science and economy react to the hazardous situations to which they are exposed. His thesis is that the gap has been increasing between those who participate in decisions and those who are excluded from the decision-making process, but who nevertheless have to bear the consequences of decisions taken. It is a classic exploration of risk that will be valued by those interested in technology, communication, sociology, politics, and scientific research.

Lury, Celia (2004). *Brands: The logos of the global economy*. New York: Routledge. ISBN 0-415-25183-4, pb, \$38.95.

The brand, a medium of exchange between company and consumer, has become one of the key cultural forces of our time and one of the most important vehicles of globalization. In a new approach that uses media theory to study the economy, Celia Lury offers a detailed and innovative analysis of the brand. Illustrated with many examples, the book argues that brands mediate the supply and demand of products and services in the global economy and frame the activities of the market by functioning as an interface. Brands communicate interactively, selectively promoting and inhibiting communication between producers and consumers. They operate as a public currency while being legally protected as private property in law. Brands introduce sensation, qualities and affect into the quantitative calculations of the market and organize the logics of global flows of products, people, images, and events.

Milner, Murray Jr. (2004). *Freaks, geeks, and cool kids: American teenagers, schools, and the culture of consumption*. New York: Routledge. ISBN 0-415-94830-4, hc, \$27.50.

Freaks, Geeks, and Cool Kids argues that the teenage behaviors that annoy adults do not arise from hormones, bad parenting, poor teaching, or the media, but from adolescents' lack of power over the central features of their lives: they must attend school; they have no control over the curriculum; they can't choose who their classmates are. What teenagers do have is the power to create status systems and symbols that not only exasperate adults, but also impede learning and maturing. Ironically, parents, educators, and businesses are inadvertently major contributors to these outcomes. An absorbing journey that stirs up a mixture of nostalgia and dismay, Milner shows how high school distills the worst features of American consumer society and shapes how we relate to our neighbors, partners, and coworkers. It also provides insight into how schools and the lives of teenagers might be transformed.

Mitchell, Jack W. (2005). *Listener supported: The culture and history of public radio*. Westport, CT: Praeger. ISBN 0-275-98352-8, hc, \$39.95.

National Public Radio's first employee, Jack W. Mitchell, examines the dreams that inspired those who created NPR, the all-too-human realities that grew out of those dreams, and the criticism public radio has incurred from both sides of the political spectrum. The first producer of NPR's legendary "All Things Considered," Mitchell tells the story of public radio from the point of view of an insider, a participant, and a thoughtful observer. He traces its origins in the progressive movement of the 20th century; and analyses the people, institutions, ideas, political forces, and economic realities that helped it evolve into what we know as public radio today.

Naftali, Tim (2005). *Blind spot: The secret history of American counterterrorism*. New York: Basic Books. ISBN 0-4650-9281-0, hc, \$26.

Timothy Naftali, one of the foremost historians of intelligence, espionage and national security in the U.S., and whose research was drawn upon for the historical sections of the 9/11 Commission's report, explores our successes and failures in combating terrorism. In riveting prose, Naftali delivers an alarming picture about our real ability to fight terrorism, and explores the reasons why we have consistently been less well equipped to counter terrorists' efforts than we think. This is the first book to tell the full story of American counter-terrorism efforts – tying together confrontations with SS renegades in the wake of World War II to PLO hijackings in the 1970s to Hezbollah kidnappings in the 1980s to the duel with al Qaeda in the 1990s and beyond. Naftali eerily illustrates how intelligence agencies' failure to connect the dots about Zacarias Moussaoui – the so-called 20th 'hijacker' arrested in the weeks before September 11 – are emblematic of the failure to learn the lessons of the past.

Penrose, Roger (2004). *The road to reality: A complete guide to the laws of the universe*. New York: Alfred A. Knopf. ISBN 0-679-45443-8, hc, \$40.

Physics certainly underlies the operation of technology, and Roger Penrose has written a brilliant 1,000+ page tour de force explaining the many ways in which physics accounts for the universe itself and the behaviors of much that lies within it. At the same time, the book engages contemporary controversies in physics, contends that while the theory of relativity looks reasonable secure that quantum physics is far less secure, and that there is an overwhelming beauty and mystery to the world and the cosmos. A deep humility permeates this volume from one of the most profound physicists of contemporary times.

Patterson, Kerry, Joseph Grenny, Ron McMillan, Al Switzler (2005). *Crucial confrontations: Tools for revolving broken promises, violated expectations, and bad behavior*. New York: McGraw-Hill. ISBN 0-07-144652-4, pb, \$16.95.

Behind the problems that routinely plague families, teams, and organizations are individuals who either can't or won't deal with failed promises. Others have broken rules, missed deadlines, or just plain behaved badly. If anybody steps up to the issue, he or she often does a lousy job and creates a whole new set of problems. New research demonstrates that these disappointments are not just irritating – they are costly – sapping organizational performance by 20 to 50 percent and accounting for up to 90 percent of divorces. Drawn from over 10,000 hours of real-life observations, *Crucial Confrontations* teaches skills to increase confidence in facing tough issues including resolving failed promises and missed deadlines, transforming broken rules and bad behaviors into productive accountability, and strengthening relationships while solving problems.

Rhodes, Edwardo Lao (2003). *Environmental justice in America: A new paradigm*. Bloomington, IN: Indiana University Press. ISBN 0-253-34137-x, pb, \$21.95.

This book presents a new approach to environmental justice and its equitable distribution. Edwardo Lao Thodes examines environmental justice as a public policy concern and suggests a new methodology for evaluating environmental justice problems. In Part I, he makes the case that race and class were not a major concern of environmental policy until the 1990s. In Part II, he looks at the public policy concerns and discusses methodological approaches to the issues. In Part III, he discusses a case of hazardous waste disposal, which leads to policy recommendations for sharing risk. Throughout, Rhodes links these issues to international environmental justice programs, to issues of national sovereignty and the paternalism of developed nations toward the underdeveloped world, and to notions of economic necessity.

Richmond, Jonathan (2005). *Transport of delight: The mythical conception of rail transport in Los Angeles*. Akron, OH: The University of Akron Press. ISBN 1-884836-94-1, pb, \$39.95.

This unusual book develops a novel theory of myth to explain the construction of rail passenger transit in Los Angeles when it has little to offer the needs of a dispersed autopolis, whose urgent but dispersed public transportation needs could have been better served by developing the regional bus system. The author conducted interviews and performed the detective work necessary to reveal an unlikely logic that held together a network of symbols, images, and metaphors that together present powerful mythical beliefs in a guise of truth. A political analysis shows how consensus was reached to proceed with the light rail to Long Beach, but political explanations are ultimately found lacking, because they cannot explain why decision-makers would want to put the rail in place. It is only when provocative metaphors – of the need to connect communities and to restore a mythical balance to a dysfunctional transportation system – and symbols – of escape from the pressure cooker of poverty, of urban success, power, and indeed sexual acumen – are surfaced, that we realize that Los Angeles rail passenger transit is the result of the very human need to transcend complexity by providing mythical creations that appear to offer easy answers to society's deepest problems.

Roberts, John (2004). *The modern firm: Organizational design for performance and growth*. New York: Oxford University Press. ISBN 0-19-829376-3, hc, \$27.50.

John Roberts, in this award-winning book, argues that there are predictable, necessary relationships among organizational designs, routines and processes, and corporate cultures that will improve performance and growth. The organizations that are successful will establish patterns of fit among the elements of their organizational designs, competitive strategies, and the external environment in which they operate, and will go about this in a holistic manner. The Modern Firm develops powerful conceptual frameworks for analyzing the interrelations between organizational design features, competitive strategy, and the business environment. Written in a non-technical language, the book is based on rigorous modeling and draws on numerous examples, from the eighteenth century fur trading companies to modern firms such as BP and Nokia. Finally, the book explores why these developments are happening now, pointing to the increase in global competition and changes in technology.

Rosner, Lisa, Ed. (2004). *The technological fix: How people use technology to create and solve problems*. New York: Taylor & Francis. ISBN 0-415-94711-1, pb, \$25.95.

Most literally, the term 'technological fix' should mean a fix provided by technology – a solution for all of our problems, from medicine and food production to all the environment and business. Instead, technological fix has come to mean a cheap, quick fix using inappropriate technology that usually creates more problems than it solves. In cultures that pride themselves on their inventiveness and aptitude for technology (think America, German, and Dutch), people may be too eager to apply a technological fix as it has appeared throughout the twentieth century. Addressing such 'fixes' as artificial hearts, industrial agriculture and climate engineering, these essays examine our need to turn to technology for solutions to all of our problems. This newest addition to the Hagley Perspectives on Business and Culture series sets out the distinction between a technological fix and a true technological solution.

Sandler, Ronald, Philip Cafaro, Eds. (2005). *Environmental virtue ethics*. Lanham, MD: Rowman & Littlefield. ISBN 0-7425-3390-5, pb, \$28.95.

Environmental virtue ethics is the area of environmental ethics concerned with character. It has been an underappreciated and underdeveloped aspect of environmental ethics. The selections in this collection, consisting of ten original and four reprinted essays by leading scholars in the field, discuss the role that virtue and character have traditionally played in environmental discourse and reflect upon the role that it should play in the future. The selections also discuss the

substantive content of the environmental virtues and vices and apply them to concrete environmental issues and problems. This collection established the indispensability of environmental virtue ethics to environmental ethics. It also enhances the breadth and quality of the ongoing discussion of environmental virtue and vice and the role they should play in an adequate environmental ethic.

Schacht, Steven P., Jeffery E. Aspelmeier (2005). *Social and behavioral statistics: A user-friendly approach*. Boulder, CO: Westview Press. ISBN 0-8133-4168-X, pb, \$32.

In this newly revised text, the authors make use of their proven stress-busting approach to teaching statistics to self-described math phobic students. They use humorous examples and step-by-step presentations of statistical procedures to illustrate what are often complex and hard-to-grasp statistical concepts. Students and instructors will find this text to be a helpful, easy to interpret, and thoroughly comprehensive introduction to social and behavioral statistics.

Serlin, David (2004). *Replaceable you: Engineering the body in postwar America*. Chicago: University of Chicago Press. ISBN 0-226-74884-7, pb, \$25.

After World War II, the United States underwent a massive cultural transformation that was vividly realized in the development and widespread use of new medical technologies. Plastic surgery, wonder drugs, artificial organs, and prosthetics inspired Americans to believe in a new age of modern medical miracles. The nationalistic pride that flourished in postwar society, meanwhile, encouraged many Americans to put tremendous faith in the power of medicine to rehabilitate and otherwise transform the lives and bodies of the disabled and those considered abnormal. *Replaceable You* revisits this heady era in American history to consider how these medical technologies and procedures were used to advance the politics of conformity during the 1950s.

Steele, Brett D., Tamera Dorland, Eds. (2005). *The heirs of Archimedes: Science and the art of war through the age of enlightenment*. Cambridge, MA: The MIT Press. ISBN 0-262-19516-X, hc, \$55.

This collection of essays examines the emergence during the early modern era of a synthesis of scientific theory and military practice. It is the first collaborative scholarly assessment of these early military-scientific relationships, which have been long neglected by scholars both in the history of science and technology and in military history. The book begins with the innovation of gunpowder weaponry in both Christian and Islamic states of the late medieval and Renaissance eras. Other topics include the cultural resistance to scientific techniques; the relationship of early modern science and naval power, particularly the intersecting developments in mathematics and oceanic navigation; the efforts by early practitioners and theorists of chemistry to increase the power and consistency of gunpowder; and the application of advanced scientific knowledge and Enlightenment ideals within the military engineering and artillery organizations of the eighteenth century.

Swedin, Eric G. (2005). *Science in the contemporary world: An encyclopedia*. Santa Barbara, CA: ABC CLIO. ISBN 1-85109-524-1, hc, \$85.

In 1950, no one had heard of quarks, no one knew the structure of DNA, and no manufactured object had left the gravitational pull of Earth. Now these are all commonplace. This work details the people and discoveries that brought disease eradication, desktop computers, close-up looks of outer space, and a sense of wonder at what the human mind can accomplish. This is the age of science and technology and this book through its hundreds of entries describes it well.

Szerszynski, Bronislaw (2005). *Nature, technology and the sacred*. Malden, MA: Blackwell Publishing. ISBN 0-631-23603-1, pb, \$29.95.

This provocative and timely book argues that contemporary ideas and practices concerning

nature and technology remain closely bound up with religious ways of thinking and acting. Using examples from North America, Europe, and elsewhere, it reinterprets a range of 'secular' phenomena in terms of their conditioning by a complex series of transformations of the sacred in Western history. The contemporary practices of environmental politics, technological risk behavior, alternative medicine, vegetarianism and ethical consumption take on new significance as sites of struggle between different sacral orderings. *Nature, Technology and the Sacred* introduces a radically new direction for today's critical discourse concerning nature and technology – one that reinstates it as a moment within the ongoing religious history of the West.

Taper, Mark L., Subhash R. Lete, Eds. (2004). *The nature of scientific evidence: Statistical, philosophical, and empirical considerations*. Chicago: University of Chicago Press. ISBN 0-226-78955-1, pb, \$30.

An exploration of the statistical foundations of scientific inference, this volume asks what constitutes scientific evidence (think of its prominence in the No Child Left Behind Act) and whether scientific evidence can be quantified statistically. Mark Taper, Subhash Lele, and an esteemed group of contributors explore the relationships among hypotheses, models, data, and inference on which scientific progress rests in an attempt to develop a new quantitative framework for evidence. Informed by interdisciplinary discussions among scientists, philosophers, and statisticians, they propose a new 'evidential' approach, which may be more in keeping with the scientific method. *The Nature of Scientific Evidence* persuasively argues that all scientists should care more about the fine points of statistical philosophy because therein lies the connection between theory and data. Though the book uses ecology as an exemplary science, the interdisciplinary evaluation of the use of statistics in empirical research will be of interest to any reader engaged in the quantification and evaluation of data.

Tomaiuolo, Nicholas G. (2004). *The web library: Building a world class personal library with free web resources*. Medford, NJ: Information Today, Inc. ISBN 0-910965-67-6, pb, \$29.95.

With this comprehensive, eye-opening book and its companion Web site, Nick Tomaiuolo shows how anyone can create a comprehensive digital library using no-cost (where necessary, low cost) Web resources. And when Nick says 'library' he means a vast, rich collection of data, documents, and images that – if you follow his instructions to the letter – can rival the holdings of many traditional libraries. *The Web Library* is a readable, easy-to-use guide that puts hundreds of useful resources at your fingertips 24/7 while saving you time and money. You'll find a wealth of annotated URLs, more than 30 helpful figures and screenshots, and abundant examples of free, authoritative Web resources you can start using right away. Best of all, you'll discover techniques for finding and collecting new content as the Web evolves.

Tutton, Richard, Oonagh Corrigan, Eds. (2004). *Genetic databases: Socio-ethical issues in the collection and use of DNA*. New York: Taylor & Francis. ISBN 0-415-31680-4, pb, \$43.95.

Genetic Databases offers a timely analysis of the underlying tensions, contradictions and limitations of the current regulatory frameworks for and policy debates about genetic databases. Drawing on original empirical research and theoretical debates in the fields of sociology, anthropology and legal studies, the contributors to this book challenge the prevailing orthodoxy of informed consent and explore the relationship between personal privacy and the public good. They also consider the multiple meanings attached to human tissue and the role of public consultations and commercial involvement in the creation and use of genetic databases. The authors argue that policy and regulatory frameworks produce a representation of participation that is often at odds with the experiences and understandings of those taking part. The findings present a series challenge for public policy to provide mechanisms to safeguard the welfare of individuals participating in genetic databases.

Van den Bergh, Jeroen C. J. M., Marco A. Janssen, Eds. (2004). *Economics of industrial ecology: Materials, structural change, and spatial scales*. Cambridge, MA: The MIT Press. ISBN 0-262-22071-7, hc, \$50.

The thirteen chapters of this text integrate the natural science and technological dimensions of industrial ecology with a rigorous economic approach and by doing so contribute to the advancement of this emerging field. Using a variety of modeling techniques (including econometric, partial and general equilibrium, and input-output models) and applying them to a wide range of materials, economic sectors, and countries, these studies analyze the driving forces behind material flows and structural changes in a way that can offer guidance for economically and socially feasible policy solutions. After a survey of concepts and relevant research, the book presents historical analyses of structural change from statistical and decomposition approaches; a range of models that predict structural change on the national and regional scale under different policy scenarios; two models that can be used to analyze waste management and recycling operations; and, adopting the perspective of local scale, an analysis of the dynamics of eco-industrial parks in Denmark and the Netherlands. The book concludes with a discussion of the policy implications of an economic approach to industrial ecology.

Van Wyck, Peter C. (2004). *Signs of danger: Waste, trauma, and nuclear threat*. Minneapolis, MN: University of Minnesota Press. ISBN 0-8166-3763-6, pb, \$19.95.

The Waste Isolation Pilot Project in Carlsbad, New Mexico began receiving shipments of government-generated radioactive waste in 1999. With a proposed closing date of 2030, this repository for nuclear waste must be secured with a sign, the purpose of which will be to keep people away for three hundred generations. In the official documents uncovered by Peter van Wyck, we encounter a government bureaucracy approaching the issue of nuclear waste as a technical problem only to find it confronting a host of intractable philosophical issues concerning language, culture, and history. *Signs of Danger* plumbs these depths as it shows us how the problem raised in the desert of New Mexico is actually the problem of a culture grappling with ecological threats and with questions of the limits of meaning and representation in the deep future. The reflections at the center of this book – on memory, trauma, disaster, representation, and the virtual – are aimed at defining the uniquely modern status of environmental and nuclear threats. They offer invaluable insights into the interface of where culture ends and nature begins, and how such a juncture is closely linked with questions of risk, concepts of history, and the cultural experience of time.

Von Hippel, Eric (2005). *Democratizing innovation*. Cambridge, MA: The MIT Press. ISBN 0-262-00274-4, hc, \$29.95.

Consumers have never been completely happy. Despite the plethora of goods available on the market, there's always some need that available products can't fill or fill inadequately. But now emerging technologies arm users with the tools they need to create the products they truly want. Examples are plentiful – from the music industry, where inexpensive synthesizers allow users to create varied and high-tech sounds previously only available in expensive studios, to the sports arena, where snowboarders and windsurfers have completely revolutionized the equipment they use. The same trend is taking place in industry as well. Manufacturers like Texas Instruments and IBM used to design custom integrated circuits for their customers, but now those customers design them for themselves. This shift from manufacturer to user has profound implications for consumers and companies alike.

Von Hippel explains in detail how the process of user-centric, democratized innovation works. He explains why users are increasingly developing their own custom products, and why they then often freely reveal what they have developed. He shows how communities of users are actually becoming such powerful innovation engines that they increasingly drive manufacturers out of product development altogether – a pattern he documents in fields ranging from open source software to sporting equipment.

Winn, J. Emmett, Susan L. Brinson, Eds. (2005). *Transmitting the past: Historical and cultural perspectives on broadcasting*. Tuscaloosa, AL: University of Alabama Press. ISBN 0-8173-5175-2, pb, \$22.95.

The essays in this collection represent some of the best cultural and historical research on broadcasting in the U.S. today. Each essay concentrates on a particular event in broadcast history – beginning with Marconi’s introduction of wireless technology in 1899. Michael Brown examines newspaper reports in America of Marconi’s belief in Martians, stories that effectively rendered Marconi inconsequential to the further development of radio. The widespread installation of radios in automobiles in the 1950s, Matthew Killmeier argues, paralleled the development of television and ubiquitous middle-class suburbia in America. Heather Hundley analyzes depictions of male and female promiscuity as presented in the sitcom *Cheers* at a time concurrent with media coverage of the AIDS crisis. Fritz Messere examines the Federal Radio Act of 1927 and the clash of competing ideas about what role radio should play in America life. Chad Dell recounts the highbrow programming strategy NBC adopted in 1945 to distinguish itself from other networks. And George Plasketes studies the critical reactions to *Cop Rock*, an ill-fated combination of police drama and musical, as an example of society’s resistance to genre mixing or departures from formulaic programming.

Young, Christian C. (2005). *The environment and science: Social impact and interaction*. Santa Barbara, CA: ABC-CLIO. ISBN 1-5760-7963-5, hc, \$75.

Drawing on the arts, religion, and the full range of sciences, *The Environment and Science* is an invaluable resource for all those who wish to understand the most pressing scientific and environmental issues facing humankind. This work explains in an accessible manner the complex interplay between scientific inquiry and public perceptions of the environment over the past 400 years. With scientists seemingly divided, many laypeople have struggled to understand environmental issues. Now this lively but scholarly work aims to bridge the gap, and provide an invaluable guide based on classic scientific texts and the very latest research.

Agar, Nicholas (2004). *Liberal eugenics: In defense of human enhancement*. Malden, MA: Blackwell Publishing. ISBN 1-4051-2390-7, pb, \$21.95.

The author is a senior lecturer in ethics at Victoria University of Wellington in New Zealand. He focuses on three particular technologies that appear quite likely to offer the practical possibility of eugenics exercised by parents as they bring children into the world: cloning by somatic cell nuclear transfer, genomics, and genetic engineering. He argues forcefully for the legitimacy of both these technologies and their applications by parents and rejects arguments that have been raised against such procedures such as creating genetically designed stratified societies and a confining view of human excellence that consists of genetic perfection. The arguments are engaging and well argued although many will find them unconvincing.

Austerberry, David (2004). *Digital asset management: How to realize the value of video and image libraries*. New York: Focal Press. ISBN 0-2405-1924-8, pb, \$49.95.

David Austerberry, the owner of a new media consulting group, presents the business case for digital asset management systems, demystifies assumptions about the technology, and provides a thorough introduction to the system components required such as ingest, indexing, searching, middleware, databases, and storage systems. Content and document management systems are core back office applications of the modern day enterprise, yet there is little information available on the deployment of these systems in media businesses. This book explains the potential for applying asset management to image and multimedia libraries, increasing efficiency in content creation and simplifying distribution over a variety of channels including television, iTV, the Internet, webcasting, mobile phones and wireless PDAs.

Baker, David P., Gerald K. LeTendre (2005). *National differences, global similarities: World culture and the future of schooling*. Palo Alto, CA: Stanford University Press. ISBN 0-8047-5021-1, pb, \$13.57.

Using American schools as a reference point, this book provides a comprehensive, comparative description of schooling as a global institution. Each chapter develops a story about a particular global trend: continuing gender differences in achievement, new methods to govern schools, the increasing use of private tutoring, school violence, the development of effective curricula, and the everyday work of teachers. The authors draw on a four-year investigation conducted in 47 countries that examined many aspects of K-12 schooling. Baker and LeTendre present the results on the study in a nontechnical and accessible fashion, outlining the implications of current trends for both education policy discussions and theoretical explorations of the role of education in society.

Berlin, Leslie (2005). *The man behind the microchip: Robert Noyce and the invention of Silicon Valley*. New York: Oxford University Press. ISBN 0-19-516343-5, hc, \$30.

This new biography shares the fascinating story of Robert Noyce, co-founder of Intel and Fairchild Semiconductor, and co-inventor of one of the most important technologies of the twentieth century: the integrated circuit, electronic heart of the high-tech revolution. Warren Buffet, Andy Grove, Steve Jobs, Gordon Moore, Arthur Rock – these were Noyce’s friends and colleagues. Berlin, visiting scholar at Stanford University, has interviewed them all, and their recollections of Noyce, bolstered by the author’s unprecedented access to Noyce’s papers, make this book not only the first, but likely to be the definitive, story of one of the twentieth century’s greatest inventor-entrepreneurs. It is also the story of the rise of Silicon Valley, a region best known for its plums and apricots when the 29-year-old Noyce arrived in 1956, and the epicenter of the high-technology universe by the time of his death in 1990.

Calaprice, Alice, Ed. (2005). *The new quotable Einstein*. Princeton, NJ: Princeton University Press. ISBN 0-691-12074-9, pb, \$14.95.

Albert Einstein, one of the three greatest physicists of all time, is a source of endless fascination. This set of quotations including the well known and the obscure was compiled by a former Senior Editor of Princeton University Press who worked on the Einstein papers for twenty years. Eighteen sections of quotes are organized by topics with appropriate citation information for each quotation. Another section contains quotes attributed to Einstein and then there are a section of quotes from others about Einstein. The quotations are complemented by a foreword by Freeman Dyson, biographical information, a Q & A of common questions about Einstein, a few pertinent documents related to his life, black and white photos, bibliography, and a useful index. Of particular interest to JOTS readers is the chapter of quotations on science and scientists, mathematics, and technology, including the following one: “The main source of all technological achievements is the divine curiosity and playful drive of the tinkering and thoughtful researcher, as much as it is the creative imagination of the inventor.” [August 22, 1930, in a radio broadcast in Berlin. Transcribed by Frederich Herneck in *Die Naturwissenschaften* 48 (1961), 33. Einstein Archive 4-044.]

Chan, Lois Mai (2005). *Library of Congress subject headings: Principles and applications*. Westport, CT: Libraries Unlimited. ISBN 1-59158-156-7, 4th edition, pb, \$75.

Surely one of the greatest technological innovations for libraries was the decision by the Library of Congress (LOC) in the summer of 1898 to reconfigure its card catalog into dictionary form where title, author, and subject were interfiled in alphabetical order. The LOC began to compile a list of preferred subjects and standardization among libraries accelerated as others began to adapt or directly utilize this system. The subject headings have been maintained and are continuously revised following a set of guidelines and uses controlled vocabulary for headings

and subheadings. This fourth edition brings the LOC subject headings discussion up to date with important concepts, principles, and guidelines from an expert on LOC subject headings. Readers of JOTS are reminded that we use the LOC subject headings and subheadings for technology as one important guideline for authors of subjects of possible interest to JOTS. Additionally, familiarity with the LOC subject headings will aid any researcher in their bibliographic research.

Clyde, William, Andrew Delohery (2005). *Using technology in teaching*. New Haven, CT: Yale University Press. ISBN 0-300-10394-8, pb, \$16.50.

A superb guide to using technology effectively in the university or college classroom by two experienced practitioners who teaching finance and English composition respectively at Quinnipiac University in Connecticut. Contrary to many books of this genre, the material is organized around specific goals, including communicating with students, promoting collaborative learning, clarifying course objectives, developing student research skills, collecting course materials, distributing course materials, learning through experience, improving student writing, using assessment and feedback, and identifying plagiarism. A CD-ROM that accompanies the text provides very useful examples across a range of subjects and all served up in an anecdotal and non-technical style that make it accessible to instructors with a wide range of abilities regarding technologies.

Collins, M. W., M. A. Atherton, J. A. Bryant, Eds. (2005). *Nature and design. Volume 1*. Billerica, MA: WIT Press, 25 Bridge Street, Billerica, MA 01821. ISBN 1-85312-852-X, hc, \$213.

This is an extraordinary collection of essays by biologists and engineers in a new series on "Design and Nature" that provides current and breathtaking treatments of natural structures and seeks to learn from them design insights that can aid human understanding of their functions as well as inform current engineering practice. The opening chapter takes up the important question of "What is design?" This is followed by chapters that deal respectively with mathematics in the natural world, cell energy transfer as an example of applications of the laws of thermodynamics, robustness and complexity, growth and form in light of D'Arcy Thompson's contributions to the subject, design in plants, the tree as an engineering structure, a homeostatic model as a tool for the design and analysis of shell structures, adaptive growth, optical reflectors and antireflectors in animals, a medical engineering project in the field of cardiac assistance, Leonardo da Vinci, and the evolution of land-based locomotion and aerodynamics with reference to both animals and solar powered cars. The final chapter takes up the issue of creativity and nature. There is a considerable range of disciplines invoked in the prosecution of these essays including engineering, mathematics, physics, chemistry, biomimetics, history of science, and technology. Generous numbers of black and white photographs, diagrams, charts, tables, and graphs accompany the essays and greatly aid reader comprehension of key ideas. While the book is quite expensive, it is strongly recommended for library acquisition and for teachers of design. The ideas within its pages can stimulate new research ventures, enrich the teaching of many topics in design and technology fields, and serve as wonderful exemplars of interdisciplinary work related to design and technology.

Committee on Facilitating Interdisciplinary Research (2005). *Facilitating interdisciplinary research*. Washington, DC: National Academies Press. ISBN 0-309-09435-6, pb, \$42. (also available as pdf for cheaper price).

A committee of the National Academies was established through the impetus of the Keck Foundation to review definitions of interdisciplinary research, identify current structural models of interdisciplinary research, analyze policies and procedures of various funding agencies and organizations that encourage or discourage interdisciplinary research, identify measures to evaluate the impact of interdisciplinary research among various constituencies, develop findings and conclusions on the state of interdisciplinary research, and provide recommendations as to how to better stimulate and support interdisciplinary research. This 300-page report summarizes the

results of their deliberations, research, convocations, and discussions with individuals, organizations, institutions, and government agencies concerning this important topic. Technology professionals will find much to consider within these pages, especially as so many successful applications and projects in technology require interdisciplinary approaches for success to be realized.

Conant, Jennet (2005). *109 East Palace: Robert Oppenheimer and the secret city of Los Alamos*. New York: Simon & Schuster. ISBN 0-7432-5007-9, hc, \$26.95.

109 East Palace, Santa Fe, New Mexico was the “office” of the top secret team of over 5,000 scientists, technicians, troops, and support personnel working in the desert at nearby Los Alamos. Jennet Conant, granddaughter of James Conant, uses this “location” as a vantage point to describe the social, cultural, and scientific life of the Los Alamos community through the eyes of Dorothy McKibbin, a civilian who worked at 109 East Palace as the project’s gatekeeper. The book is based on extensive interviews, voluminous records, and the author’s own personal family encounters with the secrecy and then terror of the atomic bomb invented at Los Alamos. This is a story superbly told with vivid anecdotes, humor, pathos, history, science, and technology. It very nicely complements the much longer and earlier award-winning book by Richard Rhodes, *The Making of the Atomic Bomb*.

DeGroot, Gerard J. (2005). *The bomb: A life*. Cambridge, MA: Harvard University Press. ISBN 0-674-01724-2, hc, \$27.95.

Gerard DeGroot, a historian at the University of St. Andrews in Scotland, tells the story of this once unimaginable weapon that – at least since 8:16 AM on August 6, 1945 – has haunted our dreams and threatened our existence. The Bomb has killed hundreds of thousands outright, condemned many more to lingering deaths, and made vast tracts of land unfit for life. For decades it dominated the psyches of millions, becoming a touchstone of popular culture, celebrated or decried in mass political movements, films, songs, and books. DeGroot traces the life of the Bomb from its birth to turn-of-the-century physics labs of Europe to a childhood in the New Mexico desert of the 1940s, from adolescence and early adulthood in Nagasaki, Bikini, Australia, and Kazakhstan to maturity in test sites and missile silos around the globe. His book portrays the Bomb’s short but significant existence in all its scope, providing us with a portrait of the times and the people – from Oppenheimer to Sakharov, Stalin to Reagan – whose legacy still shapes our world.

Denzin, Norman K., Yvonna S. Lincoln, Eds. (2005). *The SAGE handbook of qualitative research*. Third edition. Thousand Oaks, CA: SAGE Publications. ISBN 0-7619-2757-3, hc, \$130.

The earlier editions of this handbook were hailed by friends and critics alike as rich sources of ideas in the qualitative research tradition. This tradition continues with this new edition of a classic in qualitative research methods. All researchers in technology will benefit from reading and considering the varied methods advanced in this reference work as they seek to answer practical evaluation and research questions about technical education in all its varied dimensions. The first set of chapters describes the origins and import of qualitative research. Further sections consider paradigms and perspectives (frequently contested), strategies of inquiry, methods of collecting and analyzing empirical materials, and the art and practices of interpretation, evaluation, and presentation. Not surprisingly, there are frequent examples in this text of the marked and sometimes strong disagreements that exist within this field of research methods and the final three chapters give some consideration about why this is true in the present and will likely remain true in the future. SAGE and the editors are to be congratulated for updating this worthwhile reference work. Scholars will want to keep the prior editions of this handbook, however, as almost two-thirds of the contributors were new to this edition and many topics discussed in prior editions are not represented in the new volume – a reflection of the ferment and divergent viewpoints within the world of qualitative research.

Dreyfus, Hubert L., Mark A. Wrathall, Eds. (2005). *A companion to Heidegger*. Malden, MA: Blackwell Publishing. ISBN 1-4051-1092-9, hc, \$124.95.

Martin Heidegger is certainly one of the most influential philosophers of the twentieth century. This handbook is part of the series of Blackwell Companions to Philosophy. It surveys the life and influence of Heidegger and takes a chronological approach to his work organized into three main sections: his early work, *Being and Time*, and his later work. Each section contains essays by leading experts on standard philosophical topics such as logic, phenomenology, temporality, language, realism, hermeneutics, and truth and his contributions to these topics as well as consideration of more general areas such as philosophy of science and analysis of key aspects of his voluminous writings. JOTS readers should become conversant with Heidegger and the chapter on “Technology” by the philosopher of technology, Albert Borgmann, is particularly worthy of readers’ attention as it succinctly describes Heidegger’s views concerning technology – many quite controversial at the time – now considered commonplace. Many other ideas of Heidegger are pertinent to ruminations about technology in general and life in our postmodern time.

Georges, Thomas M. (2003). *Digital soul: Intelligent machines and human values*. Boulder, CO: Westview Press. ISBN 0-8133-4057-8, pb, \$16.95.

This book serves up an excellent introduction to artificial intelligence from a former research scientist at the National Bureau of Standards, Institute for Telecommunication Sciences, and NOAA. It addresses fundamental questions concerning intelligence, consciousness, machines that think, robotics, moral problems, electronic democracy, the strengths and limitations of smart machines, the covenant between science and society, and a final chapter that considers the author’s own views concerning the implications of AI regarding human conceptions of god(s) – he thinks such concepts will be discarded.

Gershenfeld, Neil (2005). *FAB: The coming revolution on your desktop – from personal computers to personal fabrication*. New York: Basic Books. ISBN 0-465-02745-8, hc, \$26.

Acclaimed technoprognosticator Neil Gershenfeld, Director of MIT’s Center for Bits and Atoms, outlines the new frontier of technology: experiments at the vanguard of a new science and a new era that will let people create objects they desire and thus make the kind of world they want to live in. The practical applications, as Gershenfeld points out, permit people in developed nations to create highly customized devices that would never occur to a team of ‘product designers.’ Moreover, Gershenfeld vividly details the powerful benefits that will accrue to developing nations. Many of his examples are from labs in India, Costa Rica, Ghana, and Norway, where people are solving local problems in surprisingly successful ways. Fab labs are situated at the boundary of computer science and physical science, where digital fabrication is building with logic. It is the perfect marriage of theory and practice to produce local development and local prosperity.

Gertler, Mark, Kenneth Rogoff (2005). *NBER macroeconomics annual 2004*. Cambridge, MA: The MIT Press. ISBN 0-262-57229-X, \$35.00.

The *NBER Macroeconomics Annual* presents pioneering work in macroeconomics by leading academic researchers that is addressed to a broad audience of public policymakers as well as to the academic community. Each paper is followed by comments and discussion to give a more complete context for the views expressed. The 2004 edition features a range of papers aimed at providing coherent and informative answers to such important questions as the effect of federal government debt on interest rates; the stochastic dimension of the American economy; the role of technology as a source of economic fluctuations; and the interaction of capital flows, fiscal policy, and monetary policies in developing countries, emerging markets, and OECD countries.

Ghosh, Rishab Aiyer, Ed. (2005). *CODE: Collaborative ownership and the digital economy*. Cambridge, MA: The MIT Press. ISBN 0-262-0726-2, hc, \$37.50.

CODE looks at the collaborative model of creativity – with examples ranging from collective ownership in indigenous societies to free software, academic science, and the human genome project – and finds it an alternative to proprietary frameworks for creativity based on strong intellectual property rights. The contributors to CODE, from such diverse fields as economics, anthropology, law, and software development, examine collaborative creativity from a variety of perspectives, looking at new and old forms of creative collaboration and the mechanisms emerging to study them. Discussing the philosophically resonant issues of ownership, property, and the commons, they ask if the increasing application of the language of property rights to knowledge and creativity constitutes a second enclosure movement – of if the worldwide acclaim for free software signifies a renaissance of the commons. Two concluding chapters offer concrete possibilities for both alternatives, with one proposing the establishment of ‘positive intellectual rights’ to information and another issuing a warning against the threats to networked knowledge posed by globalization.

Hall, J. Storrs (2005). *Nanofuture: What's next for nanotechnology*. Amherst, NY: Prometheus Books. ISBN 1-59102-287-8, hc, \$28.

Hall, a leading researcher on the frontiers of nanotechnology as Chief Scientist at Nanorex, Inc. and a Fellow of the Molecular Engineering Research Institute, describes this extremely active emerging field in a manner accessible to the general public. He explains the history of nanotechnology, how it fits within the broader fabric of the development of technology and technical systems over time, and projects what the future will look like as the range of applications increase and mature. He squarely faces the ethical issues and inevitable tradeoffs that nanotechnology presents in a manner that enlightens and stimulates thought. This book is thoroughly recommended for a comprehensive tour of this exciting area of technology research and development.

Hillstrom, Kevin, Laurie Collier Hillstrom, Eds. (2005). *The industrial revolution in America. Volume 1: Iron and steel. Volume 2: Railroads. Volume 3: Steam shipping*. Santa Barbara, CA: ABC CLIO. ISBN 1-85109-620-5, hc, \$185 for set.

These are the first volumes of a nine volume series on the Industrial Revolution in America. Organized along identical lines, each volume focuses on the story of a particular industry's impact on America in a series of chapters that consider the origins and development of the industry, innovations and inventions, major entrepreneurs and companies, the lives of the workforce, labor organizations and reform movements, environmental impact, the interaction between the specific industry and immigration, the societal impact of the industry, Gilded Age art and literature influenced by the industry, and the industry in the modern era. Period black and white photographs accompany the 300 page narratives and comprehensive indices enables readers to quickly locate relevant materials. The remaining volumes in the series will explore textiles, mining and petroleum, automobiles, agriculture and meatpacking, communications, and an overview of the industrial revolution. This is an excellent resource series for technology professionals, students, and libraries.

Hughes, James (2004). *Citizen cyborg: Why democratic societies must respond to the redesigned human of the future*. Cambridge, MA: Westview Press. ISBN 0-8133-4198-1, hc, \$26.95.

Two major coalitions have emerged with the United States in regards to human capability to alter and enhance human beings via technological means. The one group opposes one or more technologies such as in vitro fertilization, stem cell research, life extension, and genetic manipulation. The other group argues that human beings should be guaranteed freedom to control their own bodies and brains, and to use technology to transcend human limitations. While considering the views of both of these groups, bioethicist James Hughes, argues for a third way, which he

calls democratic transhumanism. This approach argues that we will achieve the best possible posthuman future when we ensure technologies are safe, make them available to everyone, and respect the right of individuals to control their own bodies. This is a groundbreaking work of social commentary that illuminates the technologies that are pushing the boundaries of humanness – and the debate that may determine the future of the human race itself.

Jaffe, Adam B., Josh Lerner, Scott Stern, Eds. (2005). *Innovation policy and the economy*. Volume 5. Cambridge, MA: The MIT Press. ISBN 0-262-60064-1, \$30.

The economic importance of innovation brings with it an active debate on the impact public policy has on the innovation process. This annual series, sponsored by the National Bureau of Economic Research, brings the work of leading academic researchers to the broader policy community. This volume considers such topics as the implications of software outsourcing for American technology leadership; the complementary roles of large corporations and entrepreneurs in developing innovative technology; city-level policy and planning that establishes a 'jurisdictional advantage' in the value of local resources; the effect of taxes on entrepreneurship; and how to incorporate innovation into the analysis of business mergers. These papers highlight the role economic theory and empirical analysis can play in evaluating policies and programs regarding research, innovation, and the commercialization of new technologies.

J. E. Lendon (2005). *Soldiers & ghosts: A history of battle in classical antiquity*. New Haven, CT: Yale University Press. ISBN 0-300-10663-7, hc, \$35.

J. E. Lendon, a historian at the University of Virginia, argues that the most successful armies in the ancient world were those that made the most effective use of cultural tradition rather than those with the most advanced technologies. Ranging from the Battle of Champions between Sparta and Argos in 550 BC through Julian's invasion of Persia in 363 AD, *Soldiers and Ghosts* brings to life the most decisive military contests of ancient Greece and Rome. Lendon places these battles, and the methods by which they were fought, in a sweeping narrative of ancient military history. On every battlefield, living soldiers fought alongside the ghosts of tradition – ghosts that would inspire greatness for almost a millennium before ultimately coming to stifle it. Cultural traditions, the memory of the heroes of the past and their deeds, and the intense desire to emulate them and be seen by one's contemporaries, as being their rightful heirs, are the true innovations that sustained the military might of successful ancient armies.

Lesk, Michael (2005). *Understanding digital libraries*. San Francisco, CA: Morgan Kaufmann. ISBN 1-55860-924-5, pb, \$49.95.

This fully revised and updated second edition focuses on the challenges faced by both librarians and computer scientists in a field that has been dramatically altered by the growth of the Web. At every turn, the goal is practical: to show you how things you might need to do are already being done, or how they can be done. The first part of the book is devoted to technology and examines issues such as varying media requirements, indexing and classification, networks and distribution, and presentation. The second part of the book is concerned with the human contexts in which digital libraries function. Here you'll find specific and useful information on usability, preservation, scientific applications, and thorny legal and economic issues.

Mertens, Donna M. (2005). *Research and evaluation in education and psychology: Integrating diversity with quantitative, qualitative, and mixed methods*. Second edition. Thousand Oaks, CA: SAGE Publications. ISBN 0-7619-2805-7, pb, \$59.95.

The first edition of this textbook was an international bestseller among academic books of its kind. This text covers four major paradigms for research: postpositivist, constructivist, transformative, and pragmatic. Within this broader set of paradigms, the author explains quantitative, qualitative, and mixed methods approaches with a particular focus on how to plan, conduct, explain, and utilize research in culturally complex communities. Sample studies and abstracts of

research illustrate the various concepts discussed in each section of the book and the entire research process is carefully explained and illustrated by examples. Each chapter contains an outline of topics, a summary of specific research studies, delineated process steps, a feel for controversies and alternate perspectives on the topic at hand, and questions and activities to aid student comprehension. An appendix provides a useful outline for preparing a research proposal that is suitable for execution of a thesis or dissertation. This book is recommended for those preparing to conduct research in technical education that need a reliable and up-to-date refresher or for those teaching others how to do plan and conduct research.

Nuechterlein, Jonathan E., Philip J. Weiser (2005). *Digital crossroads: American telecommunications policy in the internet age*. Cambridge, MA: The MIT Press. ISBN 0-262-14091-8, \$40.

Keeping track of the changing telecommunications landscape – let alone the economic and technology forces that are driving these changes – is difficult even for the regular reader of the business pages. More difficult still is the challenge of understanding how and why the government regulates competition in this industry. Most available discussions are either superficial or laden with inaccessible jargon. *Digital Crossroads* provides a welcome break from this tradition. In this important new book, telecommunications lawyers Jonathan Nuechterlein and Philip Weisner, offer a clear, balanced, and highly readable analysis of competition policy issues in the telecommunications industry. After giving a big picture overview of the field, they present sharply reasoned analyses of the major technological, economic, and legal developments confronting communications policymakers in the twenty-first century.

Orey, Michael, Jo McClendon, Robert Maribe Branch, Eds. (2005). *Educational media and technology yearbook 2005. Volume 30*. Westport, CT: Libraries Unlimited. ISBN 1-59158-207-5, hc, \$80.

The American Association of School Librarians and the Association for Educational Communications and Technology jointly sponsor this annual volume that contains essays pertinent to educational media and technology. This year's volume provides many essays of interest to JOTS readers including learning through design, creating online environments for learning, multicultural perspectives on web-based learning, intellectual freedom after 9/11, electronic reference services, profiles of two leaders in the profession (Betty Collis and M. David Merrill), an overview of organizations and associations in the field, and a survey of graduate programs. Essays are by leading scholars with bibliographies and have been carefully edited. This is a valuable annual resource for technology professionals.

Palladino, Grace (2005). *Skilled hands, strong spirits: A century of building trades history*. Ithaca, NY: Cornell University Press. ISBN 0-8014-4320-2, hc, \$36.

This is an excellent history of the Building and Construction Trades Department of the AFL-CIO that sets the origin and evolution of the Department within the context of American business and industry. It chronicles the role of the Department in building new structures that transformed the urban environment, the introduction and use of new building methods and new building materials, improving safety standards, promotion of unionized construction, and the intricacies of forging a sense of common goals and identity among up to nineteen autonomous and highly diverse affiliates of the Department reflecting the diversity of trades and specializations within building and construction. One of the valuable contributions of the book is its promotion of a balanced understanding of the positive contributions of unions to construction and the history of business and industry. A variety of archival materials, personal interviews of leading figures, and government records are combined for the first time in an engaging look at building trades in the United States.

Petrovich, Janice, Amy Stuart Wells, Eds. (2005). *Bringing equity back: Research for a new era in American educational policy*. New York: Teachers College Press. ISBN 0-8077-4576-6, hc, \$26.

This set of essays by 24 contributors argues for the restatement and reinstatement of equity issues at the center of educational reform. Two opening chapters describe the current terrain of education policy in America with a particular focus on urban schooling and a strong argument for bringing equity back into the center of educational policy making. Four studies look at how equity-minded policies have fared in the era of educational excellence through careful analysis of tracking in desegregated schools, the use of mandates as a policy tool, testing and diversity in college admissions, and Advanced Placement courses in California high schools. The remaining six chapters take up issues around whole school reform, school choice, charter schools, vouchers, and adequacy litigations. The data, analyses, and conclusions presented are pertinent to considerations about equity as they impact education within technology professions.

Scott, Mona L. (2005). *Dewey Decimal Classification: A study manual and number building guide*. 22nd edition. Westport, CT: Libraries Unlimited. ISBN 1-59158-210-5, hc, \$75.

The Dewey Decimal Classification (DDC) system confronts most public library and K-12 school media center users, as it is a widely used system for book classification, particularly for the smaller library. This trusted guide brings the changes to the DDC to the attention of readers and explains how it was updated, detailed lists of the changes, and a comprehensive overview of the DDC. Chapter 11 focuses on Class 600 with the DDC, the Applied Sciences segment. This includes many areas that fall within the purview of technology although users of DDC should be alert to the fact that many topics that are germane to technology are not found in the 600s of the DDC but are scattered through other classes. Time spent with this guide is well spent if you or your students are likely to utilize libraries that employ the DDC as it will place your bibliographic searching on a much firmer footing.

Snell, Daniel C., Ed. (2005). *A companion to the ancient near east*. Malden, MA: Blackwell Publishing. ISBN 0-631-23293-1, hc, \$124.95.

Part of a growing series of Blackwell Companions to the Ancient World, this recent addition surveys the history, economy, culture and heritage of the Ancient Near East through a series of 32 chapters by acknowledged experts. Another section focuses on methods. Of particular interest to JOTS readers are chapters on “Money and Trade” by Christopher Monroe, “Working” by David A. Warburton, “Warfare in Ancient Egypt” by Sarah Melville, “Transmission of Knowledge” by Benjamin Foster, and “Ancient Near Eastern Architecture” by Sally Dunham. An up-to-date sixty pages of references and a good index allows for easy access to insights within the volume and among other materials. The editor has done a fine job keeping the text crisp and clear.

Standage, Tom (2005). *A history of the world in 6 glasses*. New York: Walker & Company. ISBN 0-8027-1447-1, hc, \$25.

Tom Standage, technology editor of *The Economist*, demonstrates how the most significant beverages of humankind – beer, wine, spirits, coffee, tea, and cola – developed hand-in-hand with the great epochs in history. Through each of these drinks has been written about in isolation, he argues that it is crucial to understand their relationship to each other – not as interesting cultural artifacts, but as important technological advances that reflected the societies that produced them and frequently altered the political and economic landscape of the times. Beer was first brewed in the Fertile Crescent and by 3000 BCE was so significant to Mesopotamia and Egypt that it served as currency. Wine became the major import in ancient Greece’s vast seaborne trade, and a primary conduit for spreading Greek culture abroad. Spirits such as brandy and rum fueled the Age of Exploration, fortifying sailors on long voyages and oiling the pernicious slave trade. Coffee stoked revolutionary thought, as coffee houses became centers of intellectual exchange in Europe

during the Age of Reason. Tea, though Chinese in origin, captivated the English, with far-reaching effects on the British Empire. And carbonated soda, despite being invented in 18th century Europe, stands as a 20th century phenomenon and globalizing force under the banner of brands like Coca-Cola.

Stratton, Julius A., Loretta H. Mannix (2005). *Mind and hand: The birth of MIT*. Cambridge, MA: The MIT Press. ISBN 0-262-19524-0, hc, \$55.

The title of this book is taken from the motto on the seal of the Massachusetts Institute of Technology. Julius Stratton was a student, faculty member, provost, chancellor, and president of MIT and starting writing this history upon his retirement. Loretta Mannix, his administrative assistant, continued his work upon his death and the MIT Press has now brought this fine work to the attention of readers throughout the world. All people interested in the history of technology in America and the growth and power of research universities, particularly those who emphasize the sciences and technologies, will find much in this book to admire, learn from, and consider. The text very clearly grapples with the age-old dilemma familiar to all those in technical fields about the tensions between “mind” and “hand,” as well as the rivalries among Harvard, Vassar, MIT, and Yale, the impact of the Land Grant Act of 1862, and the influence of European technical education on the founders of MIT. This is an excellent overview of the birth of an excellent world icon of technical innovation and achievement that will be of interest to all technologists.

Verbeek, Peter-Paul (2005). *What things do: Philosophical reflections on technology, agency, and design*. University Park, PA: The Pennsylvania State University Press. ISBN 0-271-02539-5, hc, \$65.

This book focuses on how technologies mediate our actions and our perceptions of the world. Peter-Paul Verbeek develops this innovative approach by first distinguishing it from the classical philosophy of technology formulated by Jaspers and Heidegger, who were concerned that technology would alienate us from ourselves and the world around us. Against this gloomy and overly abstract view, Verbeek draws on and extends the work of more recent philosophers of technology such as Don Ihde, Bruno Latour, and Albert Borgmann to present a much more empirically rich and nuanced picture of how material artifacts shape our existence and experiences. In the final part of the book he shows how this ‘postphenomenological’ approach applies to the technological practice of industrial designers. This is an excellent book that ground philosophical reflections in actual artifacts and those processes and uses that make them what they are.

Viswanathan, Madhu (2005). *Measurement error and research design*. Thousand Oaks, CA: SAGE Publications. ISBN 1-4129-0642-3, pb, \$44.95.

Most researchers acquired their knowledge of methods and research design in courses that are highly technical in nature but that often pay little attention to theory. Separate courses are then undertaken that deal with theory but provide little in the way of understanding its interaction with methods and research design. The end result is that much executed research suffers from these former students’ inability to creatively and successfully negotiate the many nuances that occur when theory, methods, and research design interact in the context of actual studies. This book by a professor at the University of Illinois at Urbana-Champaign is designed to address this theory-methods gap. Several chapters take up the nature of measurement error and its sources. Subsequent chapters deal with pinpointing the types of errors and correcting them. It then goes into a very wide ranging discussion of measures and measurement across various disciplines and the interactions between measurement error and research design and analysis. There are very few books that address the types of issues that this book considers in the helpful manner by which it proceeds. Researchers in technology will produce better research if the lessons distilled in this book are taken to head, heart, and hand.

Beset, Joel (2004). *More damned lies and statistics: How numbers confuse public issues*. Berkeley, CA: University of California Press. ISBN 0-520-23830-3, hc, \$19.95.

In this sequel to the acclaimed *Damned Lies and Statistics*, Joel Best continues his straightforward, lively, and humorous account of how statistics are produced, used, and misused by everyone from researchers to journalists. Underlining the importance of critical thinking in all matters numerical, Best illustrates his points with examples of good and bad statistics about such contemporary concerns as school shootings, fatal hospital errors, bullying, teen suicides, deaths at the World Trade Center, college ratings, the risks of divorce, racial profiling, and fatalities caused by falling coconuts. This book encourages all of us to think in a more sophisticated and skeptical manner about how statistics are used to promote causes, create fear, and advance particular points of view.

Bremer, Manuel, Daniel Cohnitz (2004). *Information and information flow. An introduction*. Frankfurt, Germany: Ontos Verlag. ISBN 3-937202-47-1, pb, \$34.95.

This book is an introductory text into the theory of syntactic and semantic information, and information flow. Syntactic information theory is concerned with the information contained in the very fact that some signal has a non-random structure. Semantic information theory is concerned with the meaning or information content of messages and the like. The theory of information flow is concerned with deriving some piece of information from another. The main part of the book considers situation semantics as a foundation of modern approaches in information theory. It gives a brief overview of the background theory and then explains the concepts of information, information architecture and information flow from that perspective.

Dew, John Robert, Molly McGowan Nearing (2004). *Continuous quality improvement in higher education*. Westport, CT: Praeger. ISBN 0-275-98389-7, hc, \$39.95.

Dew and Nearing have found a solid, enormously valuable body of knowledge for leaders in varied higher education settings regarding continuous quality improvement. They provide a wide variety of effective practices that campuses can use for strategic planning, self-assessments, benchmarking, building a collaborative culture, engaging in team activities, using measurement systems, and applying CI concepts to teaching and learning.

Dunham, William (2005). *The calculus gallery: Masterpieces from Newton to Lebesgue*. Princeton, NJ: Princeton University Press. ISBN 0-691-09565-5, hc, \$29.95.

This book charts the growth and development of calculus by sampling from the work of some of its foremost practitioners, beginning with Isaac Newton and Gottfried Wilhelm Leibniz in the late seventeenth century and continuing to Henri Lebesgue at the dawn of the twentieth century. Dunham lucidly presents the definitions, theorems, and proofs. Collectively, these selections document the evolution of calculus from a powerful but logically chaotic subject into one whose foundations are thorough, rigorous, and unflinching – a story of genius triumphing over some of the toughest, subtlest problems imaginable.

Hanson, Susan, Genevieve Giuliano, Eds. (2004). *Geography of urban transportation*, 3rd edition. New York: The Guilford Press. ISBN 1-59385-055-7, hc, \$60.

A highly successful text and professional resource, this classic work is now in a fully revised and restructured third edition. Leading geographers and urban planners present the foundational concepts and methodological tools that readers need to understand to engage with today's pressing policy issues. Covered are such key topics as passenger and freight dynamics in the American metropolis; the urban transportation planning process, including the use of GIS; and questions related to public transit, land use, energy, equity, environmental impacts, and more. Updated throughout with a heightened emphasis on policy – and featuring over 100 maps, charts, and photographs – the third edition contains new chapters on intercity travel and transportation finance.

In addition, a new concluding chapter integrates key themes and provides some practical approaches to solving urban transportation problems.

Kenney, Daniel R., Ricardo Dumont, Ginger Kenney (2005). *Mission and place: Strengthening learning and community through campus design*. Westport, CT: Praeger. ISBN 0-275-98123-1, hc, \$ 49.95.

Taking a holistic approach that connects landscape, buildings, and people, the authors clearly develop the notion of 'placemaking' as a creative, educational activity. Passionate yet down-to-earth writers and thinkers, they link concrete and familiar topics and specific examples with broad, insightful, and persuasive convictions: learning is a practice that takes place in communities; well-designed forms can lead function and strengthen community; and a rigorous planning process can empower academic leaders to exercise agency and vision.

Krug, Gary (2005). *Communication, technology and cultural change*. Thousand Oaks, CA: SAGE Publications. ISBN 0-7619-7201-3, pb, \$29.95.

Communication and the history of technology have invariably been examined in terms of artifacts and people. Gary Krug argues that communication technology must be studied as an integral part of culture and lived experience. Rather than standing in awe at the apparent explosion of new technologies, this book links key moments and developments in communication technology with the social conditions of their time. It traces the evolution of technology, culture, and the self as mutually dependent and influential.

O'Harrow Jr., Robert (2005). *No place to hide*. New York: The Free Press. ISBN 0-7432-5480-5, hc, \$26.

Award-winning *Washington Post* reporter Robert O'Harrow, Jr. lays out in unnerving detail the post 9/11 marriage of private data and technology companies and government anti-terrorist initiatives to create something entirely new: a security-industrial complex. Drawing on his years of investigation, O'Harrow shows how the government now depends on burgeoning private reservoirs of information about almost every aspect of our lives to promote homeland security and fight the war on terror.

Oravas, Gunhard A.E. (2004). *Lectures on the history of technology and engineering*. New York: Georg Olms Verlag. ISBN 3-487-11744-4, hc, 2 volumes, 148 Euros for set.

This monumental 1140 page study, completed over the course of over 30 years and a true *magnus opus*, traverses the history of technology and engineering from ancient times to the present. The earliest chapters treat separately developments in ancient Sumer, Egypt, Persia, Greece, and Rome focusing on discrete topics and discussing each of them in considerable technical detail. The author then moves on to consider medieval technology in over 100 pages of text with a focus on industrial power, mechanical clocks, and Gothic cathedrals. The chapter on the Renaissance period focuses on engineering as a practical art. The Baroque period looks at the ascent of modern science, scientific technology, and engineering while a chapter on French engineering delves into considerable details concerning the rise of engineering sciences. Next within the author's purview is British technology as three chapters consider manufacturing and textile industries, the industrial revolution, the rise of power technology (steam), and the advent of industrial technology and engineering. The remainder of the volumes are then organized thematically and consider in turn manual and machine tools, ship propulsion systems, railroads, metal industries, telecommunications, internal combustion engines, turbines, electric power, electric illumination, electronics in space, and electric and electronic transmission of vision including phototelegraphy and television. Typical of many European academic tomes, there are no illustrations and the indices are limiting. But the volumes contain much useful information, some not readily attainable elsewhere.

Books Briefly Noted

Schwartz, Robert, John Mayne, Eds. (2005). *Quality matters: Seeking confidence in evaluating, auditing, and performance reporting*. New Brunswick, NJ: Transaction Publishers. ISBN 0-7658-0256-2, hc, \$59.95.

This pioneering study analyzes practices for assuring the quality of evaluation, performance auditing, and reporting in the face of political, organizational, and technical obstacles. A final chapter addresses the extent to which quality assurance systems become bothersome rituals or remain meaningful mechanisms to ensure quality control. This well-structured volume will be of particular interest to policymakers and adds much to the literature on program evaluation and performance auditing.

Van Dijk, Jan A. G. M. (2005). *The deepening divide: Inequality in the information society*. Thousand Oaks, CA: SAGE Publications. ISBN 1-4129-0402-1, pb, \$34.95.

At the end of the 1990's, a critical issue appeared to block the widespread benefits of computers and the Internet: the digital divide. Usually defined as the gap between those who have access to computers and the Internet and those who do not, the digital divide is the subject of debate and widespread media attention. Jan van Dijk reframes and expands this concept, examining the digital divide as a social and political problem, not merely a technological one. Taken from an international perspective, the book offers full coverage of the literature and research on this topic and a theoretical framework from which to analyze and approach the issue.