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Philanthropy and the Future of Science and Technology Science and Technology in World History Encyclopedia of Science and Technology Communication The Science and Technology of Growing Young Science and Technology of Mesoscopic Structures Science, Technology, and Society Can Science and Technology Save China? Science and technology IV Routledge Handbook of Art, Science, and Technology Studies Information Science & Technology in China: A Roadmap to 2050 Science & Technology Firsts Measurement and Statistics on Science and Technology Rethinking Music through Science and Technology Studies Encyclopedia of Physical Science and Technology Science and Technology in the Global Cold War Cognitive Science and Technology Environmental Science and Technology Introduction to Glass Science and Technology Oversight of science and technology policy Science and Technology Policy Cooperative Innovation: Science And Technology Policy Women, Science, and Technology Handbook of Fruit Science and Technology Science and Technology and the Future Development of Societies The Encyclopedia of Science and Technology Sustainability Science and Technology Mapping Scientific Method International Science and Technology Education Harrow Science and Technology Education Promoting Wellbeing for Individuals, Societies and Environments Final Frontier The History of Science and Technology in the United States Chocolate Science and Technology Biennial Science and Technology Report to the Congress Science and Technology in World History, Volume 2 Handbook of Oil Spill Science and Technology Decision Science and Technology New Wealth Advances in Nuclear Science and Technology Capitalizing on Investments in Science and Technology

[The Science and Technology of Growing Young](#) Sep 29 2022 Wall Street Journal, USA Today, and Publishers Weekly bestseller The prospect of living to 200 years old isn't science fiction anymore. A leader in the emerging field of longevity offers his perspective on what cutting-edge breakthroughs are on the horizon, as well as the practical steps we can take now to live healthily to 100 and beyond. In *The Science and Technology of Growing Young*, industry investor and insider Sergey Young demystifies the longevity landscape, cutting through the hype and showing readers what they can do now to live better for longer, and offering a look into the exciting possibilities that await us. By viewing aging as a condition that can be cured, we can dramatically revolutionize the field of longevity and make it accessible for everyone. Join Sergey as he gathers insights from world-leading health entrepreneurs, scientists, doctors, and inventors, providing a comprehensive look into the future of longevity in two horizons: • **The Near Horizon of Longevity** identifies the technological developments that will allow us to live to 150—some of which are already in use—from AI-based diagnostics to gene editing and organ regeneration. • **The Far Horizon of Longevity** offers a tour of the future of age reversal, and the exciting technologies that will allow us to live healthily to 200, from Internet of Bodies to digital avatars to AI-brain integration. In a bonus chapter, Sergey also showcases 10 longevity choices that we already know and can easily implement to live to 100, distilling the science behind diet, exercise, sleep, mental health, and our environments into attainable habits and lifestyle hacks that anyone can adopt to vastly improve their lives and workplaces. Combining practical advice with an incredible overview of the brave new world to come, *The Science and Technology of Growing Young* redefines what it means to be human and to grow young.

Advances in Nuclear Science and Technology Sep 25 2019 The Editors take pleasure in presenting Volume 13 of this annual review series, consisting, as usual, of author itative reviews of timely developments in the technical fields of nuclear engineering, science, and teechnology. No one in the community we try to serve in a post Harrisburg era will need convincing of the relevance of the first two items to be mentioned from the volume. Instru mentation for two-phase flow measurements, by Banerjee and Lahey, has applicability in the engineering research labor atory and to power reactors; the U. S. LWR still remains the dominant power reactor type and seems likely to retain its hold if only through the capital of existing plants this century. Messrs. Bohm, Closs, and Kuhn, however, have a longer time scale to respect as they view for us the prospects of

nuclear waste disposal from a European viewpoint. They bring out nicely the political aspects that cannot be divorced from technical considerations in this area, or in the more militant terms of confrontation, in this arena, perhaps. We are pleased to carry in this volume two complementary papers on mathematical methods in nuclear engineering.

Oversight of science and technology policy Jun 14 2021

Harrow Aug 05 2020 In her first novel since the Pulitzer Prize-nominated *The Quick and the Dead*, the legendary writer takes us into an uncertain landscape after an environmental apocalypse, a world in which only the man-made has value, but some still wish to salvage the authentic. "She practices ... camouflage, except that instead of adapting to its environment, Williams's imagination, by remaining true to itself, reveals new colorations in the ecology around her."
—A.O. Scott, *The New York Times Book Review* Kristen is a teenager who, her mother believes, was marked by greatness as a baby when she died for a moment and then came back to life. After Kristen's failing boarding school for gifted teens closes its doors, and she finds that her mother has disappeared, she ranges across the dead landscape and washes up at a "resort" on the shores of a mysterious, putrid lake the elderly residents there call "Big Girl." In a rotting honeycomb of rooms, these old ones plot actions to punish corporations and people they consider culpable in the destruction of the final scraps of nature's beauty. What will Kristen and Jeffrey, the precocious ten-year-old boy she meets there, learn from this "gabby seditious lot, in the worst of health but with kamikaze hearts, an army of the aged and ill, determined to refresh, through crackpot violence, a plundered earth"? Rivetingly strange and beautiful, and delivered with Williams's searing, deadpan wit, Harrow is their intertwined tale of paradise lost and of their reasons—against all reasonableness—to try and recover something of it.

Science and Technology in the Global Cold War Oct 19 2021 Investigations of how the global Cold War shaped national scientific and technological practices in fields from biomedicine to rocket science. The Cold War period saw a dramatic expansion of state-funded science and technology research. Government and military patronage shaped Cold War technoscientific practices, imposing methods that were project oriented, team based, and subject to national-security restrictions. These changes affected not just the arms race and the space race but also research in agriculture, biomedicine, computer science, ecology, meteorology, and other fields. This volume examines science and technology in the context of the Cold War, considering whether the new institutions and institutional arrangements that emerged globally constrained technoscientific inquiry or offered greater opportunities for it. The contributors find that whatever the particular science, and whatever the political system in which that science was operating, the knowledge that was produced bore some relation to the goals of the nation-state. These goals varied from nation to nation; weapons research was emphasized in the United States and the Soviet Union, for example, but in France and China scientific independence and self-reliance dominated. The contributors also consider to what extent the changes to science and technology practices in this era were produced by the specific politics, anxieties, and aspirations of the Cold War. Contributors Elena Aronova, Erik M. Conway, Angela N. H. Creager, David Kaiser, John Krige, Naomi Oreskes, George Reisch, Sigrid Schmalzer, Sonja D. Schmid, Matthew Shindell, Asif A. Siddiqi, Zuoyue Wang, Benjamin Wilson

International Science and Technology Education Sep 05 2020 Education in science, technology, engineering and mathematics (STEM) is crucial for taking advantage of the prospects of new scientific discoveries initiating or promoting technological changes, and managing opportunities and risks associated with innovations. This book explores the emerging perspectives and methodologies of STEM education and its relationship to the cultural understanding of science and technology in an international context. The authors provide a unique perspective on the subject, presenting materials and experiences from non-European industrialized as well as industrializing countries, including China, Japan, South Korea, India, Egypt, Brazil and the USA. The chapters offer a wide scope of interpretations and comparative reviews of STEM education by including narrative elements about cultural developments, considering the influence of culture and social perceptions on technological and social change, and applying innovative tools of qualitative social research. The book represents a comprehensive and multidisciplinary review of the current status and future challenges facing STEM education across the world, including issues such as globalization, interdependencies of norms and values, effects on equity and social justice as well

as resilience. Overall the volume provides valuable insights for a broad and comprehensive international comparison of STEM philosophies, approaches and experiences.

Science and technology IV May 26 2022

Rethinking Music through Science and Technology Studies Dec 21 2021 This volume seeks to offer a new approach to the study of music through the lens of recent works in science and technology studies (STS), which propose that facts are neither absolute truths, nor completely relative, but emerge from an intensely collective process of construction. Applied to the study of music, this approach enables us to reconcile the human, social, factual, and technological aspects of the musical world, and opens the prospect of new areas of inquiry in musicology and sound studies. **Rethinking Music through Science and Technology Studies** draws together a wide range of both leading and emerging scholars to offer a critical survey of STS applications to music studies, considering topics ranging from classical music instrument-making to the ethos of DIY in punk music. The book's four sections focus on key areas of music study that are impacted by STS: organology, sound studies, music history, and epistemology. Raising crucial methodological and epistemological questions about the study of music, this book will be relevant to scholars studying the interactions between music, culture, and technology from many disciplinary perspectives.

Sustainability Science and Technology Nov 07 2020 **Sustainability Science and Technology: An Introduction** explains the root causes of global failures in natural and human systems, as well as the most readily available technological solutions. The book dispels risky scientific and technological ideas that further complicate the current environmental and socioeconomic predicaments. It also bridges gaps among scientific and technological fields and systematically translates current findings for a wide technical and public audience. Written at a level accessible to all, the story is told one bite-sized chapter at a time, about the size of a scientific journal article. The chapters are self-contained, each grappling with a large topic. This provides more in-depth coverage of a topic than a standard encyclopedia article and promotes the widest possible dialog around sustainability issues and their solutions. Case studies from all continents and all technological development levels expound viable solutions for each of the planetary systems: water, soils, and atmosphere. In turn, the wider socioeconomic context of sustainable science and technology is examined. One of the first books to address the full scope of sustainability, it sets the stage for discussion and sustainability re(training) across professional divides. The editor and contributors take a balanced approach that is neither too technical nor too focused on any particular field. They highlight global and regional perspectives and the linkages between different planetary and human systems. The book helps you understand the thorny essence of sustainability issues—often fraught with ethical dilemmas, obsolete technologies, and lifestyle implications—and how to develop solutions to them.

Handbook of Fruit Science and Technology Feb 08 2021 This work offers comprehensive, current coverage of preharvest and postharvest handling and production of fruits grown in tropical, subtropical and temperate regions throughout the world. It discusses over 60 major and minor crops, and details developments in fruit handling and disease control, storage practices, packaging for fruit protection, sizing equipment, conveyors, package fillers, refrigeration methods and more.

Final Frontier Jun 02 2020 Star Trek was right — there is only one final frontier, and that is space... Human beings are natural explorers, and nowhere is this frontier spirit stronger than in the United States of America. It almost defines the character of the US. But the Earth is running out of frontiers fast. In Brian Clegg's **The Final Frontier** we discover the massive challenges that face explorers, both human and robotic, to uncover the current and future technologies that could take us out into the galaxy and take a voyage of discovery where no one has gone before... but one day someone will. In 2003, General Wesley Clark set the nation a challenge to produce the technology that would enable new pioneers to explore the galaxy. That challenge is tough — the greatest we've ever faced. But taking on the final frontier does not have to be a fantasy. In a time of recession, escapism is always popular — and what greater escape from the everyday can there be than the chance of leaving Earth's bounds and exploring the universe? With a rich popular culture heritage in science fiction movies, books and TV shows, this is a subject that entertains and informs in equal measure.

Encyclopedia of Science and Technology Communication Oct 31 2022 For a free 30-day online trial to this title, visit www.sagepub.com/freetrial In the academic world, the term "science communication" refers both to a set of professions (such as science journalism and public information work) and to an interdisciplinary scholarly research specialization. Much of this research is aimed at improving our understanding of the best ways to communicate complex information, especially to people who are not scientists. Science communication specialists are concerned with giving people useful information about health, environment, and technology - as well as science itself. In order to do this, we also need to improve our understanding of how people think, form opinions, and process information. Additionally, professional practitioners in science communication are engaged in strategic and ethical decisions every day, such as: How should reporters cover the issue of climate change? Should the views of scientists who do not believe that climate change has been caused by human activity be included alongside the views of those who do, in order to give a "balanced" story, or does this mislead the public into thinking that both of these positions are equally accepted within the scientific community? The **Encyclopedia of Science and Technology Communication** provides information on the entire range of interrelated issues in this interdisciplinary field in one place, along with clear suggestions on where to begin the search for more. Geared towards undergraduate and graduate students in journalism, communication, mass communication, and media studies, as well as towards working journalists, public information officers, and public relations specialists, this encyclopedia introduces this vast, fascinating field while challenging the reader to question assumptions inherent in communication across disciplinary boundaries. **Key Themes Associations and Organizations Audiences, Opinions, and Effects Challenges, Issues, and Controversies Changing Awareness, Opinion, And Behavior Critical Influences and Events Global and International Aspects Government Agencies (US) History, Philosophy, and Sociology of Science Important Figures Journal Publications Key Cases and Current Trends Law, Policy, Ethics, and Beliefs Major Infrastructural Initiatives Practices, Strategies, and Tools Professional Roles and Careers Public Engagement Approaches Theory and Research Venues and Channels**

Decision Science and Technology Nov 27 2019 Decision Science and Technology is a compilation of chapters written in honor of a remarkable man, Ward Edwards. Among Ward's many contributions are two significant accomplishments, either of which would have been enough for a very distinguished career. First, Ward is the founder of behavioral decision theory. This interdisciplinary discipline addresses the question of how people actually confront decisions, as opposed to the question of how they should make decisions. Second, Ward laid the groundwork for sound normative systems by noticing which tasks humans can do well and which tasks computers should perform. This volume, organized into five parts, reflects those accomplishments and more. The book is divided into four sections: `Behavioral Decision Theory' examines theoretical descriptions and empirical findings about human decision making. `Decision Analysis' examines topics in decision analysis. `Decision in Society' explores issues in societal decision making. The final section, `Historical Notes', provides some historical perspectives on the development of the decision theory. Within these sections, major, multi-disciplinary scholars in decision theory have written chapters exploring some very bold themes in the field, as an examination of the book's contents will show. The main reason for the health of the Decision Analysis field is its close links between theory and applications that have characterized it over the years. In this volume, the chapters by Barron and Barrett; Fishburn; Fryback; Keeney; Moreno, Pericchi, and Kadane; Howard; Phillips; Slovic and Gregory; Winkler; and, above all, von Winterfeldt focus on those links. Decision science originally developed out of concern with real decision problems; and applied work, such as is represented in this volume, will help the field to remain strong.

Science & Technology Firsts Feb 20 2022 Based on the concept of "firsts," offers approximately four thousand entries divided into twelve broad topics, such as agriculture and everyday life, communications, computers, physics, and transportation.

Cooperative Innovation: Science And Technology Policy Apr 12 2021 Research cooperation in a nation is a fundamental key to national competitiveness in technology that supports growth in a national economy. To fully understand why some nations are more successful in innovation than others, one must examine the structure and process of knowledge creation and use — the Science

& Technology policy of a nation. National innovation requires progress both in Science & Technology, and also in economy. Research cooperation for innovation is necessary, since science, technology, and production are performed in different sectors of a nation. Universities conduct research science, and science discovers nature. Governments support most of the research in universities, and therefore are the principal sponsors of science. Industry develops most technology and commercializes technology into economically useful products/services. The structure and process of knowledge in a nation thus requires (1) creation of knowledge in science, (2) translation of science into technology, and (3) design of technology into commercialization of utility. At a national level, innovation is thus a complicated concept — proposing a need to identify the proper ways that government-university-industry can cooperate to advance knowledge and economically benefit from innovation. Special programs in Science & Technology policy that have proven beneficial in fostering research cooperation for national competitiveness will be covered in this book. Cooperative Innovation: Science & Technology Policy helps readers understand a practical science & technology policy for a nation. Its contents are particularly useful for government administrators of research, industrial research directors, university research directors, and students of science & technology policy.

Biennial Science and Technology Report to the Congress Feb 29 2020

Information Science & Technology in China: A Roadmap to 2050 Mar 24 2022 As one of the eighteen field-specific reports comprising the comprehensive scope of the strategic general report of the Chinese Academy of Sciences, this sub-report addresses long-range planning for developing science and technology in the field of information science & technology. They each craft a roadmap for their sphere of development to 2050. In their entirety, the general and sub-group reports analyze the evolution and laws governing the development of science and technology, describe the decisive impact of science and technology on the modernization process, predict that the world is on the eve of an impending S&T revolution, and call for China to be fully prepared for this new round of S&T advancement. Based on the detailed study of the demands on S&T innovation in China's modernization, the reports draw a framework for eight basic and strategic systems of socio-economic development with the support of science and technology, work out China's S&T roadmaps for the relevant eight basic and strategic systems in line with China's reality, further detail S&T initiatives of strategic importance to China's modernization, and provide S&T decision-makers with comprehensive consultations for the development of S&T innovation consistent with China's reality. Supported by illustrations and tables of data, the reports provide researchers, government officials and entrepreneurs with guidance concerning research directions, the planning process, and investment. Founded in 1949, the Chinese Academy of Sciences is the nation's highest academic institution in natural sciences. Its major responsibilities are to conduct research in basic and technological sciences, to undertake nationwide integrated surveys on natural resources and ecological environment, to provide the country with scientific data and consultations for government's decision-making, to undertake government-assigned projects with regard to key S&T problems in the process of socio-economic development, to initiate personnel training, and to promote China's high-tech enterprises through its active engagement in these areas.

Routledge Handbook of Art, Science, and Technology Studies Apr 24 2022 Art and science work is experiencing a dramatic rise coincident with burgeoning Science and Technology Studies (STS) interest in this area. Science has played the role of muse for the arts, inspiring imaginative reconfigurations of scientific themes and exploring their cultural resonance. Conversely, the arts are often deployed in the service of science communication, illustration, and popularization. STS scholars have sought to resist the instrumentalization of the arts by the sciences, emphasizing studies of theories and practices across disciplines and the distinctive and complementary contributions of each. The manifestation of this commonality of creative and epistemic practices is the emergence of Art, Science, and Technology Studies (ASTS) as the interdisciplinary exploration of art-science. This handbook defines the modes, practices, crucial literature, and research interests of this emerging field. It explores the questions, methodologies, and theoretical implications of scholarship and practice that arise at the intersection of art and STS. Further, ASTS demonstrates how the arts are intervening in STS. Drawing on methods and concepts derived from STS and allied fields including visual studies, performance studies, design studies,

science communication, and aesthetics and the knowledge of practicing artists and curators, ASTS is predicated on the capacity to see both art and science as constructions of human knowledge-making. Accordingly, it posits a new analytical vernacular, enabling new ways of seeing, understanding, and thinking critically about the world. This handbook provides scholars and practitioners already familiar with the themes and tensions of art-science with a means of connecting across disciplines. It proposes organizing principles for thinking about art-science across the sciences, social sciences, humanities, and arts. Encounters with art and science become meaningful in relation to practices and materials manifest as perceptual habits, background knowledge, and cultural norms. As the chapters in this handbook demonstrate, a variety of STS tools can be brought to bear on art-science so that systematic research can be conducted on this unique set of knowledge-making practices.

Science and Technology Education Promoting Wellbeing for Individuals, Societies and Environments Jul 04 2020 This edited volume provides theoretical and practical resources relating to the 'STEPWISE' curricular and instructional framework. 'STEPWISE' is the acronym for Science & Technology Education Promoting Wellbeing for Individuals, Societies & Environments. It is a framework for organizing teaching and learning domains in ways that prioritize personal and social actions to address 'critical socioscientific issues' — that is, controversial decisions by powerful individuals/groups about science and technology (and related fields) that may adversely affect individuals, societies and/or environments. The book contains chapters written by and/or with teachers who have used STEPWISE to guide their instructional practices, as well as chapters written by education scholars who have used a range of theoretical lenses to analyze and evaluate STEPWISE — and, in several cases, described ways in which it relates to (or could relate to) their practices and/or ways in which the framework might logically be amended. Overall, this book offers educators, policy makers and others with resources useful for arranging science and technology education in ways that may assist societies in addressing significant potential personal, social and/or environmental problems — such as dramatic climate change, preventable human diseases, species losses, and social injustices — associated with fields of science and technology.

Measurement and Statistics on Science and Technology Jan 22 2022 With the rise of genomics, the life sciences have entered a new era. Maps of genomes have become the icons for a comprehensive knowledge of the organism on a previously unattained level of complexity. This book provides an in-depth history of mapping procedures as they were developed in classical genetics. The book shows that the technology of genetic mapping is by no means a recent acquisition of molecular genetics or even genetic engineering. It demonstrates that the development of mapping technologies has accompanied the rise of modern genetics from its very beginnings. In the first section, Mendelian genetics is set in perspective from the viewpoint of the detection and description of linkage phenomena. The second section addresses the role of mapping for the experimental working practice of classical geneticists, their social interactions, and for their laboratory "life worlds." With its detailed analyses of the scientific practices and its illustration of the diversity of mapping, this book is a significant contribution to the history of genetics. A companion volume from the same editors - *From Molecular Genetics to Genomics: The mapping cultures of twentieth-cent genetics* - covers the history of molecular genetics and genomics.

Introduction to Glass Science and Technology Jul 16 2021 An Introduction to Glass Science and Technology presents the fundamental topics in glass science and technology including glass formation, crystallisation and phase separation. A detailed discussion of glass structure models with emphasis on the oxygen balance model is also presented. This expanded second edition also includes new chapters on the compositions and properties of commercial glasses and thermal analysis of glasses and melts. Exercises are included at the end of the chapters. This introductory text is ideal for undergraduates in materials science, ceramics or inorganic chemistry. It will also be useful to the engineer or scientist seeking basic knowledge of the formation, properties and production of glass.

Can Science and Technology Save China? Jun 26 2022 *Can Science and Technology Save China?* assesses the intimate connections between science and society in China, offering an in-depth look at how an array of sciences and technologies are being made, how they are interfacing with

society, and with what effects. Focusing on critical domains of daily life, the chapters explore how scientists, technicians, surgeons, therapists, and other experts create practical knowledges and innovations, as well as how ordinary people take them up as they pursue the good life. Editors Greenhalgh and Zhang offer a rare, up-close view of the politics of Chinese science-making, showing how everyday logics, practices, and ethics of science, medicine, and technology are profoundly reshaping contemporary China. By foregrounding the notion of "governing through science," and the contested role of science and technology as instruments of change, this timely book addresses important questions regarding what counts as science in China, what science and technology can do to transform China, as well as their limits and unintended consequences.

Women, Science, and Technology Mar 12 2021 This reader provides an introduction to the gendering of science and the impact women are making in laboratories around the world. The republished essays included in this collection are both personal tales from women scientists and essays on the nature of science itself, covering such controversial issues like the under-representation of women in science, reproductive technology, sociobiology, evolutionary theory, and the notion of objective science.

Science and Technology in World History Dec 01 2022 Publisher description

Science and Technology of Mesoscopic Structures Aug 29 2022 The International Symposium on the Science and Technology of Mesoscopic Structures was held at Shin-Kohkaido in Nara from November 6-8, 1991. The symposium was sponsored by the International Institute for Advanced Study and partly by Nara Prefecture, Nara City, Nara Convention Bureau, and the Ministry of Education, Science and Culture of Japan, as well as industrial organizations. We would like to acknowledge the support of the symposium by these organizations. The scope of the symposium was planned by the organizing committee to cover outstanding contributors in the fields of (1) ballistic transport, (2) electron wave guides and interference effects, (3) quantum confinement effects, (4) tunneling phenomena, (5) optical nonlinearity, and (6) fabrication technology of mesoscopic structures. Twenty-six invited speakers were selected from the United States, Europe, and Japan. In addition twenty-four contributed papers were accepted for presentation at the poster session. These papers are included in the proceedings. We are grateful to the organizing committee, Ms. Y oshiko Kusaki of the International Institute for Advanced Study for the secretarial service, and Dr. Nobuya Mori, Osaka University, for his scientific cooperation. Thanks are also due to the authors and the participants for their contributions to a successful symposium.

Science and Technology and the Future Development of Societies Jan 10 2021 In June 2006, seventeen scientists and educators selected by the National Academies, the Academy of Sciences of Iran, and the Académie des Sciences of France held a workshop at the estate of the Fondation des Treilles in Toutour, France, to discuss issues concerning the role of science in the development of modern societies. **Science and Technology and the Future Development of Societies** includes the presentations made at the workshop and summarizes the discussions that followed the presentations. Topics of the workshop included science and society issues, the role of science and engineering in development; obstacles and opportunities in the application of science and technology to development; scientific thinking of decision makers; management and utilization of scientific knowledge; and science, society, and education. This book also provides useful background for the further development of interactions of Western scientists and educators with Iranian specialists.

New Wealth Oct 26 2019 This book by noted experts describes how accelerated commercialization strategies building on advances in science and technology offer a sustainable source of wealth.

Chocolate Science and Technology Mar 31 2020 This book provides an overview of the science and technology of chocolate manufacture from cocoa production, through the manufacturing processes, to the sensory, nutrition and health aspects of chocolate consumption. It covers cocoa cultivation and production with special attention paid to cocoa bean composition, genotypic variations in the bean, post-harvest pre-treatments, fermentation and drying processes, and the biochemical basis of these operations. The scientific principles behind industrial chocolate manufacture are outlined with detailed explanations of the various stages of chocolate manufacturing including mixing, refining, conching and tempering. Other topics covered include the chemistry of flavour formation and development during cocoa processing and chocolate manufacture; volatile flavour compounds and their characteristics and identification; sensory

descriptions and character; and flavour release and perception in chocolate. The nutritional and health benefits of cocoa and chocolate consumption are also addressed. There is a focus throughout on those factors that influence the flavour and quality characteristics of the finished chocolate and that provide scope for process optimization and improvement. The book is designed to be a desk reference for all those engaged in the business of making and using chocolate worldwide; confectionery and chocolate scientists in industry and academia; students and practising food scientists and technologists; nutritionists and other health professionals; and libraries of institutions where food science is studied and researched. An overview of the science behind chocolate manufacture covers the whole process from cocoa production, through manufacturing, to the nutrition and health aspects of chocolate consumption. Focuses on factors that influence chocolate flavour and quality, and that provide scope for process optimization and improvement.

Handbook of Oil Spill Science and Technology Dec 29 2019 Provides a scientific basis for the cleanup and for the assessment of oil spills Enables Non-scientific officers to understand the science they use on a daily basis Multi-disciplinary approach covering fields as diverse as biology, microbiology, chemistry, physics, oceanography and toxicology Covers the science of oil spills from risk analysis to cleanup and through the effects on the environment Includes case studies examining and analyzing spills, such as Tasman Spirit oil spill on the Karachi Coast, and provides lessons to prevent these in the future

Cognitive Science and Technology Sep 17 2021 Cognitive science is an important tool to understand all the cognitive processes of the human brain, such as memory, attention, reasoning, etc. This book on cognitive science explores the scope of this field, which includes cognitive psychology, cognitive pedagogics, psycholinguistics, cognitive linguistics, educational technology, etc. Researches and studies performed by experts across the globe have been presented in this book in a coherent manner. It will serve as a valuable source of reference for graduate and post graduate students and will provide them innovative insights into this discipline.

Environmental Science and Technology Aug 17 2021 Designed for both professional and student use, the new Second Edition includes recent improvements in the application of new technologies and materials on the environment. It also places greater emphasis on the three environmental media of air, water, and soil and discusses how technology can be used to mitigate contamination of all three.

Science and Technology in World History, Volume 2 Jan 28 2020 Science is a living, organic activity, the meaning and understanding of which have evolved incrementally over human history. This book, the second in a roughly chronological series, explores the evolution of science from the advents of Christianity and Islam through the Middle Ages, focusing especially on the historical relationship between science and religion. Specific topics include technological innovations during the Middle Ages; Islamic science; the Crusades; Gothic cathedrals; and the founding of Western universities. Close attention is given to such figures as Paul the Apostle, Hippolytus, Lactantius, Cyril of Alexandria, Hypatia, Cosmas Indicopleustes, and the Prophet Mohammed.

Philanthropy and the Future of Science and Technology Jan 02 2023 An increasingly important and often overlooked issue in science and technology policy is recognizing the role that philanthropies play in setting the direction of research. In an era where public and private resources for science are strained, the practices that foundations adopt to advance basic and applied research needs to be better understood. This first-of-its-kind study provides a detailed assessment of the current state of science philanthropy. This examination is particularly timely, given that science philanthropies will have an increasingly important and outsized role to play in advancing responsible innovation and in shaping how research is conducted. *Philanthropy and the Future of Science and Technology* surveys the landscape of contemporary philanthropic involvement in science and technology by combining theoretical insights drawn from the responsible research and innovation (RRI) framework with empirical analysis investigating an array of detailed examples and case studies. Insights from interviews conducted with foundation representatives, scholars, and practitioners from a variety of sectors add real-world perspective. A wide range of philanthropic interventions are explored, focusing on support for individuals, institutions, and networks, with attention paid to the role that science philanthropies play in helping to establish and coordinate multi-sectoral funding partnerships. Novel approaches to

science philanthropy are also considered, including the emergence of crowdfunding and the development of new institutional mechanisms to advance scientific research. The discussion concludes with an imaginative look into the future, outlining a series of lessons learned that can guide how new and established science philanthropies operate and envisioning alternative scenarios for the future that can inform how science philanthropy progresses over the coming decades. This book offers a major contribution to the advancement of philanthropic investment in science and technology. Thus, it will be of considerable interest to researchers and students in public policy, public administration, political science, science and technology studies, sociology of science, and related disciplines.

Capitalizing on Investments in Science and Technology Aug 24 2019 Although the United States is currently capitalizing on its investment in science and technology effectively, there remains much room for improvement. This volume identifies the ingredients for success in capitalizing on such investments to produce national benefits, assesses current U.S. performance, and identifies future challenges. The book cites specific examples and examines several cross-cutting issues. It explores the possibility that the national research portfolio is losing diversity as a result of less long-term research in critical fields such as networking and materials. It also examines the implications of imbalances in the supply of and demand for science and engineering talent in emerging interdisciplinary fields such as bioinformatics.

The History of Science and Technology in the United States May 02 2020

Science and Technology Policy May 14 2021 I was asked recently to prepare an independent background report on the subject of priority assessment in science and technology policy for the Australian Science and Technology Council. The Council (while not necessarily endorsing this book) suggested that a wider audience could be interested in the type of material contained in my report and kindly gave me permission to publish the material in my own right. The present book contains this and other material, some of which was presented at a seminar on National Science Policy: Implications for Government Departments arranged by the Department of Science and the Environment. Additional ideas were developed in response to comments on the manuscript by referees, as a result of discussions with Professor John Metcalfe and Dr Peter Stubbs of Manchester University, a conversation with Dr Keith Hartley of the University of York and in the wake of a communication from Dr Ken Tucker, Assistant Director, Bureau of Industry Economics, Australia. Science and technology policy affects and concerns everyone of us if for no other reason than we cannot escape in this interdependent world from the economic, social and environmental ills generated by science and technology. We must face the problems and promises inherent in new and existing science and technology whether we like it or not. Not surprisingly this book finds that all industrialized countries seem to be facing similar economic and social problems.

Mapping Scientific Method Oct 07 2020 This volume explores how the scientific method enters and determines the dominant methodologies of various modern academic disciplines. It highlights the ways in which practitioners from different disciplinary backgrounds -- the humanities, the natural sciences, and the social sciences -- engage with the scientific method in their own disciplines. The book maps the discourse (within each of the disciplines) that critiques the scientific method, from different social locations, in order to argue for more complex and nuanced approaches in methodology. It also investigates the connections between the method and the structures of power and domination which exist within these disciplines. In the process, it offers a new way of thinking about the philosophy of the scientific method. Part of the Science and Technology Studies series, this volume is the first of its kind in the South Asian context to debate scientific methods and address questions by scholars based in the global south. It will be useful to students and practitioners of science, humanities, social sciences, philosophy of science, and philosophy of social science. Research scholars from these disciplines, especially those engaging in interdisciplinary research, will also benefit from this volume.

***Encyclopedia of Physical Science and Technology* Nov 19 2021** The Encyclopedia of Physical Science and Technology contains in-depth presentations on all of today's critical technology areas, including: Materials synthesis and processing Electronic and photonic materials synthesis and processing Electronic and photonic materials Ceramics Composites High performance metals and alloys Flexible computer-integrated manufacturing Intelligent process equipment Micro- and nano-

fabrication Software Microelectronics and opto-electronics High performance computing and networking High definition imaging and displays Sensors and signal processing Data storage and peripherals Computer simulation and modeling Aeronautics Surface transportation technologies Energy technologies Pollution remediation and waste management These technologies were specified as critical by a thirteen-member National Critical Technologies panel composed of government and private-sector members and chaired by chemist William D. Phillips. The Encyclopedia of Physical Science and Technology contains in-depth first-principle and applications descriptions of all the major emerging technologies in the physical sciences, including: Advanced materials Advanced semiconductor devices Artificial intelligence Digital imaging technology Flexible computer-integrated manufacturing High-density data storage High-performance computing Opto-electronics Sensor technology Superconductors The completely revised and updated Second Edition includes the following contributions: Thirty-one from the University of California that cover subjects ranging from nuclear energy, materials, mathematics, astronomy, and computers to anti-ballistic missile defense systems and laser applications Eighteen from the AT&T Bell Laboratories that cover communications disciplines, such as digital speech processing, telecommunications switching, and optical fibers Eleven from NASA that cover astronomy, atmospheric sciences, and space flight Nine from the University of Illinois that cover subjects ranging from manufacturing process technology and scientific information services to environmental data acquisition and very large scale integration (VLSI design) Eight from United States Navy Research Centers that cover x-ray lasers and telecommunications through non-linear optics and fluid dynamics Eight from the California Institute of Technology that cover astronomy, space sciences, and parallel computing Eight from the University of Colorado that cover subjects ranging from atomic physics and geochemistry to telecommunications and the materials for microcircuitry Seven from the Electric Power Research Institute that cover power generation systems and air pollution Six from Cornell University that cover the solar system, bioprocess engineering, lasers, and dynamics Countries participating in the preparation of the Encyclopedia include: 76% United States institutions and 24% foreign institutions 12% with the European Economic Community (EEC)--7% of the contributors are from the United Kingdom, 3% are from Germany, and 1% are from Austria 1% Israel, France, and Japan 7% at institutions in Canada--the combination of the United States and Canada accounts for 83% of the contributions The author-institution community includes contributions from a total of eighteen countries--the United States, the United Kingdom, Canada, Germany, France, Israel, Japan, Austria, EEC institutions, Australia, Spain, the Netherlands, India, Korea, New Zealand, Sweden, Switzerland, and Italy The number of articles contributed by each country (excluding the United States) are: 49--the United Kingdom 46--Canada 22--Germany 9--France 7--Israel 7--Japan 5--Austria 2--EEC institutions 2--Australia 2--Spain 2--Netherlands 1--India 1--Korea 1--Norway 1--New Zealand 1--Sweden 1--Switzerland 1--Italy SUBJECT

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